

AMERICAN EDUCATIONAL MONTHLY.

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SCHOOL HOUSES FOR THE COUNTRY.*

COUNTRY schools generally need accommodations for from forty to eighty pupils. In the plan given on next page sixty seats are provided. The room is thirty-four by thirty-eight feet, and by slight changes in size it may be contracted or expanded. By adding three feet to the length space is given for ten additional seats, and by making the building four feet narrower there would still be sufficient room for four rows of desks, accommodating forty-eight pupils.



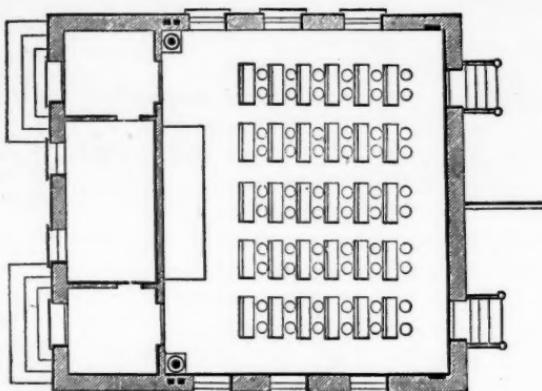
In this design two entrances are provided in front, each of which opens into a room which is at once an entry-way and a lobby for clothes. The space between the two entry-ways can be used for recitations, and a room may be finished in the basement, or added to the rear, for the storing of fuel.

The design is well adapted to districts in which the attendance is large during one portion of the year and small at other times. The recitation-room gives an opportunity

* From Johonnot's Complete Work on School Houses.

for the employment of an extra teacher when the school is crowded. The front and back walls of the school-room, between the two doors, should be occupied by blackboards. The stoves are placed in the front corners of the room and the ventilators in the opposite corners. This room is supplied with two back entrances opening respectively into the boys' and girls' play-grounds.

ELEVATION No. 1.—This elevation represents a plain but neat and substantial building of wood. The roof has the plain, wide, projecting cornice and eaves which protect the



GROUND PLAN.

walls of the building, and at the same time give it an appearance of comfort and solidity. The finish may be of battens, as in the engraving, or it may be of clap-boards, or substantially the same building may be made of brick. This elevation is represented as standing on a hill-side which slopes downward and backward from the house. In situations of this kind the back entrance may be omitted, and the basement may be fitted up for a wood-room. The nearly square form of this elevation, the perfectly plain finish, the arrangement of everything beneath a single roof, and the entire lack of ornamentation, render this one of the cheapest buildings which can be erected. If anything cheaper is attempted it will be by the use of poor materials, by scrimping just proportions, or by diminishing the size, so as to deprive pupils of their due proportion of pure air, and



Elevation 1.



Elevation 2.

of their freedom of movement. In either case the interests of the school will suffer, and present saving will be effected at a fearful future cost to the children.

ELEVATION No. 2.—This is another very plain and cheap structure of wood, finished with clap-boards. The bell-tower gives dignity to the building, but it may be omitted. The roof is the ordinary pitch and may be covered with slate or shingles.

In finishing wood structures in this manner, the clap-boards should be laid with but little exposure to the weather. This arrangement gives tighter joints, and makes the building much warmer. In some sections buildings designed for habitation are covered with a coating of tarred paper before the siding is laid, and this renders them almost air-tight. This covering is recommended for school-houses built in our northern climate, and in exposed locations. By its use the school-room will be made more comfortable, and a large saving in fuel will be made.



K. FERGUSON, ALBANY.

Elevation 3.

ELEVATION No. 3—This building, in form, is but a slight variation from No. 2. The corners of the gables have been cut off and the form of the cupola changed; but otherwise it is substantially the same. The finish in the engraving is made to represent brick, but wood or stone may be used.

In the erection of brick walls care must be taken to have the walls hollow, or formed so that a space of air may be confined within them, otherwise the walls will be damp and the room unhealthy. The precaution should also be taken to have the foundation laid in hydraulic cement as high as the water-table to prevent the moisture of the ground from permeating the entire walls of the building. The effect of the moisture is not only deleterious to health, but combined with the action of frost, it has a tendency to crack and destroy the walls of the building.

A FEW COMMON MISTAKES.

THE most popular bone of contention among the philologists of the day seems to be what Mr. Richard Grant White calls "the incongruous and ridiculous form of speech," *is being built*. We are of the opinion, however, that it has been pretty conclusively shown by Mr. Fitzedward Hall, in his essay in the April number of *Scribner's Monthly*, that we may use this expression without being in danger of sinning against "the genius of the English tongue."

But while the philological feud is raging in this quarter, and our modern Gamaliels are settling for us these "weightier matters of the law," may we not as well take ourselves to task for some of the smaller offences of pen and tongue by which we are continually doing violence to the proprieties?

Steering clear of the field of participles passive where the big guns are booming, let us bring our light artillery to bear first upon an intruding letter which often shows itself in places which it has no right to occupy. We mean *S* following the apostrophe in the possessive case of nouns ending in that letter. As, for instance, in "Barnes's Notes." In

this position the letter in question must always be regarded as an interloper. We notice this mistake in nearly every newspaper or magazine at which we glance, and it is hardly fair to printers and proof-readers to suppose that the blame rests solely with them.

Let us next have a shot at expressions such as "those sort of people," used almost universally in common conversation, and occurring frequently in the works of authors of experience and culture. When one is caught in a blunder, it is very soothing to find that one has good company, and a plenty of it. A moment's thought, however, will convince any of us of the impropriety of joining a plural adjective pronoun with a singular noun.

Another error, of which the most precise of us are often guilty in our careless moments, is that of using the superlative degree in making a comparison between two things. Unless one is grammatical by instinct it is natural to say *the best* rather than *the better*. And we Americans are by no means alone in this abuse of the king's English. Our quill-driving cousins across the Atlantic are no less frequent offenders.

We should feel it almost an insult to the reading and writing public to call attention to such an egregious blunder as "you *was*," had we not recently met with it repeatedly in a novel coming from one of the leading publishing houses in New York, the author having in this book arrived at his twelfth volume. These stories are said to be moral and popular, and deserving of a place in every household. What a pity, then, that good morals should have been combined with such very bad grammar!

One of our weekly papers of a recent date, remarks, that "an over-squeamishness about words is not a sign of mental healthfulness. We hope we have not rendered ourselves liable to condemnation on this score." D. D.

THE MOST stupendous canal in the world is one in China, which passes over two thousand miles, and to forty-two cities; it was commenced as far back as the tenth century.

MIXED SCHOOLS.

PART II.

SOCIAL SUPERVISION.—That young people need no social supervision—no teaching in regard to their relations to each other and to society—and may be left to their own impulses, as some people gravely assert, is most absurd. If the hand needs to be taught to knit or to sew, and the brain to solve its problems in arithmetic, and in philosophy, just as much, yes, a hundred times more do we need experienced teachers to aid us to solve the problems which social life forces upon us. Man, without teaching, is a savage. We inherit only a capacity for civilization. In this civilizing process shall we disregard the social nature and leave it to follow its own impulses? But “the social nature must be taught in our homes,” it is said. In what homes? We have some noble homes in which the amenities of social life are not forgotten; but those who have taught long in our schools and have watched our social panorama are forced to reiterate “what homes?” Some say, “we learn by imitation.” Aye, some of our millionaire models New York jails should absorb, and courts of justice should call to account. The persons most patent, at this epoch, to the eyes of the young are not fit models for imitation. There are multitudes of half educated young people—orphans, commercial orphans, whose parents are dead and buried under mountains of effort at accumulation, which see no other social models than those placed before the public eye; the tawdry heroes of fiction in our weekly newspapers; the dishonesty and rottenness that desecrate our political arena.

Intellectual culture, and moral and social culture are different, as we sometimes learn to our cost. A cultivated intellect enables a man to strike that balance between the rights of individuals of the human family, which creates law, but it does not oblige him to live up to that law. Knowledge is power, but it may prove a wall of offence as well as a wall of defence. We speak of secular as opposed to sectarian education, but by secular we certainly do not mean irreligious education—education which ignores all moral growth.

Those principles which lie equally at the foundation of our Christian religion, and of our Christian civilization, must be taught and rigidly taught in any school which has claim to a performance of faithful work. We have no right to leave the young and the weak in our schools, without those safeguards which every wise parent places about his children. It is one thing for teachers to select excellence and give it higher polish, and another to make that excellent which might otherwise have been evil. "Trust your pupils' honor," it is said. Very well, can we trust their judgment also? Have they no claim upon those placed over them as teachers for the guiding of their maturer judgment? Our schools are not reformatory, we say. Very true, but on the other hand, ought they not to be so well disciplined that those who enter them pure, shall not risk of going from them in need of reformatory schools? As the school increases its numbers, rendering it more impossible to give special guidance to individual pupils, it grows only the more necessary to place about them the ægis of wise regulations which shall shield them from temptation. There is no sectarianism in a high toned sense of right, and even our State schools can and must place their moral teaching on a Christian basis. This can be done without interfering with the faith of the most bigoted sectarian.

Where such instruction and oversight are made all that they ought to be to the students of a college, the difficulty of admitting ladies on the same footing as gentlemen is disposed of. But to make it what it should be, where ladies are admitted, there should be ladies, mature and judicious, either among the corps of instructors, or in some position which will at least give them advisory power on subjects connected with the moral and social condition of the school. Woman alone possesses that ready insight on moral and social points, which fits her for such work, which makes her the preserver of the world's purity. When social rout and demoralization occur, the appearance of a ready judicious woman on the field is like the coming of Sheridan to Winchester. "What was done, what to do," is the result of one sweeping glance. But however decided these intuitions may be, unless power and responsibility be placed in the

hands of such women, they result merely in an indifferent opinion or a private sorrow. There was never an era nor a country where such women were needed at the front as advisers and instructors more certainly than they are needed now and here. It is not right that some judicious women should shut themselves out of sight at such a time. The more vice and recklessness pour out their rampant clamor, the more necessary it is that such women should come forward and stretch a quiet self-reliant hand to the aid of those struggling up the hill of life. And in doing this there is no need that they should give up those qualities which fit them especially for this work.

Those who labored for the "Sanitary Commission" during the war, were not loud-voiced, boisterous women. They labored faithfully through those sad days with clear vision and firm, tireless hands, but they gave up no whit of womanly dignity. They are the weak women, not the strong and thoughtful who fill the moral sewers of the world. Is there no need that these sanitary workers should still stretch out their health-imparting hands now that the war is over? The war that needs them is not over. The battle that sees brave hearts go down and fair lives trampled out is never over.

MRS. H. E. G. AREY.

OCEANIC CIRCULATION.

"THE greatest problem of terrestial physics," as Sir John Herschel termed the cause of the ocean-currents, is now eagerly discussed by the scientific world. The means at our disposal are so ample and thorough to investigate and collect facts bearing on this question, that an indisputable theory will soon be established to account for phenomena which, apart from the natural curiosity they must ever excite, have so much to do with life on this globe. Our own country, taunted too often for its devotion to mercantile and commercial matters, has been among the foremost to investigate and collect facts bearing on this matter. So long ago as 1828, Humboldt, in an address

before the Imperial Academy of St. Petersburg, commended the United States for its exertions in this direction. The labors and data of Maury, and of our Coast Survey, are taken as valuable guides throughout the world. Our position on the continent, surrounded with the immense field over which these phenomena can be observed, is peculiarly favorable to an acquaintance with them.

What are the facts, the phenomena?

There is little dispute about these ; it is only on the *cause* that there is any serious difference of opinion.

That there are currents which constantly flow from the equator in a northeasterly direction, bringing the warm equatorial waters toward the polar regions, is incontrovertible. We can observe them ; we can even measure their rate of speed ; we can test their waters with the thermometer.

The fruits of Mexico have been washed ashore on North-western Europe ; and a recent traveler tells us that the people on the shores of Norway have been in the habit of picking up a bean, which they superstitiously regard as a charm in the labor of childbirth. This bean we know to belong to Mexico. The evidence is complete on this point.

We observe that the lines of equal mean annual temperature, instead of showing any tendency to coincide with the parallels of latitude, run up into the North Atlantic, and into the North Sea, in the form of a series of loops ; an examination of any physical map on which isothermal lines are marked will at once show this. The phenomenon is not confined to the North Atlantic ; a corresponding series of loops, though not so well defined, passes southward along the east coast of South America ; and a very marked series occupies the angle of the Pacific off the Aleutian Islands and the coast of California. But the temperature of the North Atlantic is not only raised greatly above that of places on the same parallel of latitude, having a continental climate by the interchange of tropical and polar water, it is greatly higher than that of places similarly circumstanced as to a general interchange of water in the Southern Hemisphere. Thus the mean annual temperature of the Faroe Islands, latitude $62^{\circ} 2'$ north, is about 45° Fahr., nearly equal

to that of the Falkland Islands, 52° south, which is $47\frac{1}{2}$ ° F. The temperature of Dublin, latitude $53^{\circ} 21'$ north, is $49\frac{1}{4}$ ° F.; while that of Port Famine, latitude $53^{\circ} 8'$ south, is $41\frac{1}{2}$ ° F. Yet more remarkable is the variation between places on the same parallel in the Northern Hemisphere. Halifax, in latitude $44^{\circ} 39'$, has a mean annual temperature of 43° F.; and Dublin, in latitude $53^{\circ} 21'$ has $49\frac{1}{4}$ ° F. We thus arrive at the well-known general result, that the temperature of the sea bathing the northeastern shores of the North Atlantic is greatly raised above its normal point; and the same, in a less degree, is the case with the northwestern shores of our continent.

The members of the late German Arctic Expeditions have observed that when the warmer blue waters moving from the southwestward meet the impure waters of the Spitzbergen and East Greenland currents, there is a line of demarcation very distinct, which would indicate that the Atlantic water here dips down beneath the specifically lighter water of the ice-bearing current—a conclusion which is supported by the increase of temperature with the depth beyond this point.

If there be this movement of equatorial waters to the polar regions, which is now undeniable, there must be, to preserve the equilibrium, a counter-movement from the north to the equator, and this has recently been demonstrated by many practical experiments. The most remarkable investigations ever carried on upon the ocean-currents and temperature have been recently made in two British ships—the Lightning, in 1868, and the Porcupine, in the summer of 1869. The latter vessel was sent out on three cruises, and the results of their trials have startled the scientific world, not only by the remarkable change of temperature observed, but by the evidences of animal life they found at depths which it was not believed could contain any life.

In the second cruise of this vessel, in the northern extremity of the Bay of Biscay, two hundred and fifty miles west of Ushant, a depth of twenty-three hundred and forty-five fathoms was reached and examined. This depth was nearly equal to the height of Mont Blanc, and exceeds, by five

hundred feet, the depth from which the Atlantic cable was recovered. It was unmistakably proved that as you descend the thermometer falls, and as low as 33° has been registered, while at the surface it was 67° . Examinations carried on in a similar way in the Mediterranean gave no lower temperature than 54° .

Still more startling were the observations made in the third cruise, between the north of Scotland and the Faroe Islands. There were actually found, within twelve miles of each other, two distinct climates beneath the Atlantic. In one part there was a temperature of 32° , while none less than 46° could be obtained in another. At the surface there was a temperature of 52° , and a fall of three to four degrees took place in the first fifty fathoms. These results are now exciting wonderful attention, and, on account of a new improved thermometer to resist the pressure of the water, which is in some places three tons to a square inch, they are absolutely certain. Formerly it was laid down as certain that there was no temperature less than 39° at deep-sea bottom, but that was occasioned through the fault in the manner of registering, which gave the temperature much higher than it really was.

Captain Maury demonstrated in another way the existence of an under-current from the north. An apparatus constructed by him of a block of wood, sunk by weights, and attached by a line to a small, floating barrel, moved off in a southerly direction against wind, and sea, and surface-current. And we all know that icebergs take a southerly direction, which can only be accounted for on the superposition of an under-current from the arctic regions.

It is, therefore, admitted on all sides that there is this interchange of water between the polar and equatorial regions; but the difference is rather upon the true cause of this circulation.

It is apparent from the motion of the earth from west to east, and on account of the waters starting from the equator, where their velocity is greatest, that the currents will take a northeast and a southwest direction; those from the equator will go in a northeast direction, and the arctic currents in a southwest direction. But what causes this circu-

lation? That there is a large body of water conveyed by the Gulf Stream is on all sides admitted; it is only on the absolute quantity that there is any disagreement. Some maintain that the Gulf Stream brings all the warm water from the tropics which affect northern climates, while others, admitting it carries off these warm waters, deny it has the power to modify our northern climate to the extent claimed.

The ultimate source of the Gulf Stream is, undoubtedly, as has been specially insisted upon by Sir John Herschel, the equatorial current of the Atlantic, the drift of the trade-winds.

Mr. Croll, in the *Philosophical Magazine* for February, 1870, calculates the Gulf Stream to be equal to a stream of water fifty miles broad, one thousand feet deep, and flowing at the rate of four miles an hour; he further estimates that it conveys as much heat to the northern parts of Europe as is obtained by the whole arctic regions from the sun.

Others deny that there is such a quantity of water in the Gulf Stream, and believe it is only a portion of the great equatorial flow toward the north. They maintain that other causes, far more potent, produce the interchange of water between the tropical and arctic regions.

Dr. William B. Carpenter, who has devoted many years to research on this subject, and who made those experiments in the Porcupine, read a remarkable paper before the British Association at its last meeting. In this paper he accounted for the phenomena by a theory that commanded the general assent of the learned men present at that meeting, and which has been very favorably received by the scientific world. He maintains that the true cause of oceanic currents is to be found in the arctic regions, where, the water being cold, and by a well-known physical law more dense, will sink, and thus cause a motion of the waters from warmer regions to fill its place. He further demonstrated this by a novel and beautiful experiment by conducting water of different temperatures through a tube. He acknowledges that the Gulf Stream conveys water toward the polar regions; but argues that it by no means can give the high temperature to northern latitudes. The late

Sir John Herschel gave to the winds the entire right of setting the ocean-streams in motion ; but in a letter, which is supposed to be the last he ever wrote, he accepts the theory of Dr. Carpenter. This letter was published in *Nature* of May 25, 1871. We here give a copy of it :

“ COLLINGWOOD, April 19, 1871.

“ MY DEAR SIR : Many thanks for your paper on the Gibraltar Current and Gulf Stream.

“ Assuredly, after well considering all you say, as well as the common-sense of the matter, and the experience of our hot-water circulation-pipes in our greenhouses, etc., there is no refusing to admit that an oceanic circulation of some sort must arise from mere heat, cold, and evaporation as *veræ causæ*, and you have brought forward with singular emphasis the more powerful action of the polar cold, or rather the more intense action, as its maximum effect is limited to a much smaller area than that of the maximum of equatorial heat.

“ The action of the trade and counter-trade winds in like manner cannot be ignored ; and henceforward the question of ocean-currents will have to be studied under a twofold point of view. The wind-currents, however, are of easier investigation. All the causes lie on the surface ; none of the agencies escape our notice : the configuration of coasts, which mainly determines their direction, is patent to sight. It is otherwise with the other class of movements. They take place in the depths of the ocean ; and their movements, and directions, and channels of concentration, are limited by the configuration of the sea-bottom, which has to be studied over its whole extent by the very imperfect method of sounding.

“ So, after all, there is an under-current setting outward in the Straits of Gibraltar.

“ Repeating my thanks for this interesting memoir, believe me, dear sir, yours very truly,

“ J. F. W. HERSCHEL.”

Another very plausible theory of oceanic circulation was based on *atmospheric pressure*. It is known that, at some parts of the earth's surface, there exists an atmospheric pressure capable of sustaining a column of mercury in the barometer of upward of thirty inches in height ; at the same time there are certain areas over which this pressure is only such as to raise the barometric column to a little over twenty-nine inches. Now, if we compare the difference of

absolute weight sustained by two such areas, we shall see that, in the space over which the higher atmospheric pressure exists, there is an excess of weight of air amounting in round numbers to one million of tons on each square mile. It has been maintained that it is reasonable to believe that the waters which lie under the high-pressure area have a tendency to escape from under the excessive weight toward the space over which the pressure is less.

It has been observed in the Mediterranean and Baltic that a rise of an inch in the barometer will be attended with a corresponding rise in the level of those seas of about thirteen inches, or a rise in the barometer will produce a rise of thirteen times the amount in the level of those seas.

This is certainly remarkable, and has been deemed sufficient to make many conclude that the difference of atmospheric pressure has some power both in originating and in directing the course of ocean-currents.

There are thus three causes adduced as controlling ocean-currents; the one advanced by Dr. Carpenter seems now to be in a fair way of general acceptance; though it is claimed, even by those who agree with him, that we must allow the others an important part, too, in the general circulation.—*John Proffatt, in Appleton's Journal.*

UNIFORMS FOR GIRLS.—A writer in *Scribner's Monthly* does not know "why it is not just as well for school-girls to dress in uniform as for boys. There are many excellent schools in England where the girls dress in uniform throughout the entire period spent in their education. By dressing in uniform the thoughts of the pupils are released from the consideration of dress; there is no show of wealth, and no confession of poverty. Girls from widely separated localities and classes come together, and stand or fall by scholarship, character, disposition and manners. The term of study could be lengthened by the use of the money that would thus be saved; and while a thousand considerations favor such a change, we are unable to think of one that makes against it." These reflections are suggested by the fact that in some of our schools the mere item of dress for young ladies is often over \$1000 a year.

COMPULSORY EDUCATION.

WHILE there are 5,660,074 illiterates in the United States, there are but about 3,637,000 of adult illiterates; and the latter seems the fairer way of stating it, as many persons learn to write between the ages of six and twenty-one. Only 1,148,000 of these are in the North, and of these 756,000 are in the Pacific States, thus leaving 583,000 in those States where our school system has had its best opportunity for development. In the Northern States there are 690,000 foreign illiterates: if only half of these are in the States referred to, (and doubtless there are many more,) then the number of native adult illiterates dwindles down to 238,000, or less than one to each 100 of their population. Making a fair estimate of the number of these from the South, both colored and white, and there remains less than one illiterate to each 300 of those who have had the advantages of our free schools. Surely this is not a disgraceful record when compared with other countries, and especially with the results of the compulsory law in Prussia; for in this country, after an enactment compelling children to attend school between the ages of six and fourteen had been thoroughly tried for 128 years, there were found to be for each 100 inhabitants one young man between the ages of twenty and twenty-two who could not read and write. What would be the proportion were older persons and females included?

History proves most conclusively that the leading nations of Europe do not base their power on any compulsory system of education, as stated in your April issue, but on the superiority of their teachers and schools. Prussia affords a striking example of this, as she tried such a law for almost 100 years, and, meeting with so little success, determined to devise some plan which should prove more effectual, hence established a sufficient number of Normal schools to educate all who wished to teach, and from their organization dates that high culture which has astonished all Christendom. With these are connected preparatory departments, in which applicants are tried for six months,

at the end of which time only those who have shown considerable ability are allowed to enter the Normal department; here they must remain three years, and not only finish their course of study in an honorable manner, but also prove themselves successful teachers, or else they are not permitted to take charge of a school. Any teacher who fails to make sufficient advancement, either in skill or culture, is required to re-enter the school for further instruction. Thus the Prussian instructors are only the *best* of the *best*, and no person is allowed to teach either a public or private school without the same rigid preparation. There are four cantons in Switzerland that have never had any compulsory law, and yet education in them is said to be as nearly universal as in any of the others; because, like them, they employ none but very superior teachers.

But it is stated by good authority that Holland has accomplished what no other country ever did, as she has not one adult citizen who cannot read and write. Yet she has never had any laws compelling school attendance, but her grand success is the result of having teachers and schools superior even to those of Germany, Prussia, and Switzerland.

M. EMBREE.

EMINENT FOREIGN TEACHERS DECEASED IN 1871.

THE space at our command is only sufficient to permit us to give a list with dates of the eminent foreign teachers deceased in 1871.

January 12th, Very Rev. HENRY ALFORD, D.D., Dean of Canterbury, died. A graduate of Cambridge, he was Hulsean Lecturer at Cambridge in 1841-2, and Examiner of Logic and Moral Philosophy in the University of London from 1841 to 1857.

February 9th, HENRY MELVILLE, D.D., died in London, aged 72. He graduated from Cambridge with high honors, and from 1821 to 1830 was Fellow and Tutor of St. Peter's

College. From 1852 to 1859, he was principal of the East India College, Haileybury.

February 24th, JULIUS LUDWIG WEISBACH, Ph.D., 38 years professor of Applied Mathematics and Mining Surveying in the Academy of Freiberg, died there, aged 61 years. He was the ablest civil engineer of his time, and author of many valuable scientific works.

March 18th, AGUSTUS DE MORGAN, an eminent mathematician, professor, and author, died in London, aged 65. He graduated from Cambridge in 1827, was professor of Mathematics in the University of London from 1828 to 1831, and from 1836 to 1866. His vast attainments in Mathematics and Logic are well known, and he had written numerous works on these and other subjects.

March 19th, GEORGE GOTTFRIED GERVINUS, historian, philosopher, and professor, died at Heidelberg, aged 65 years. He was professor in 1828-30 at Frankfort-on-the-Main, in 1835-1837 at Gottingen, whence he was dismissed for liberal opinions. From 1844 till his death he was professor of History at Heidelberg—he took part in the revolution of 1848.

March 19th, WILHELM VON HAIDINGER, an Austrian geologist, mineralogist, and professor died at Vienna, aged 76. He had been professor of Mineralogy and director of the Montanistic Museum since 1843.

May 25th, Most Rev. GEORGES DARBOY, D.D., Archbishop of Paris, was murdered by the Commune, aged 58 years. He was from 1839 to 1844 professor of Philosophy and Dogmatic Theology in the seminary at Langres. From 1844 to 1854 he was first Almoner of the College of Henry IV., and inspector of the religious instruction of the colleges of the Archiepiscopal Diocese of Paris.

The same day, the Abbé GASPARD DUGUERRY, an eminent pulpit orator, was murdered by the same ruffians, at the age of 74 years. He had been from 1820 to 1824 professor of Philosophy, Eloquence, and Theology in the College of Villefranche; and from 1868 to the Summer of 1870 the religious instructor of the Prince Imperial.

June 7th, ERNST IMMANUEL BEKKER, an eminent German philologist and professor died in Berlin, aged 86 years. He was professor of Greek Literature in the University of Berlin from 1807 to 1810, and from 1820 to 1871.

June 13th, Rev. GIOVANNI PIETRO REVEL, D.D., a Waldensian clergyman and professor, died at Florence. He had been professor of Theology and head of the Waldensian Theological Seminary, now at Florence, since 1855.

July 30th, Rev. HENRY LONGUEVILLE MANSEL, D.D., Dean of St. Paul's, died in London, aged 50 years. He had been Reader in Moral and Metaphysical philosophy in Magdalen College in 1855-59, Waynflete professor of the same 1859-1867, and Regius professor of Ecclesiastical History, Oxford University, from 1867 to 1870.

July, Rev. WILLIAM HINCKS, an eminent naturalist, died at Toronto, Canada. He was the first professor of Natural History in Queen's College, Cork, and from 1853 till his death held a similar professorship in the University of Toronto.

Sept. 7th, Rev. GEORGE FERRIS WHIDBORNE MORTIMER, D.D., Canon of St. Paul's, and for many years Head Master of the City of London school, died in London, aged 66 years.

Sept. 16th, Rev. GEORGE ARCHDALL GRATWICKE, D.D., died in Cambridge, at the age of 84 years. He had been for thirty-six years Master of Immanuel College, Cambridge, and was eminent for his thorough scholarship.

Sept. 19th, Rev. RICHARD WILLIAM JELF, D.D., Principal of King's College, London, and Canon of Christ Church, Oxford, died in London, aged 73 years. He graduated from Christ Church, Oxford, in 1820, with first-class honors, was Fellow and tutor of Oriel College from 1820 to 1826, Preceptor to Prince George of Cumberland (afterward King of Hanover), 1826-1844, and Principal of King's College, 1844-1871. He was also an author of considerable note.

Sept. 28th, CIPRIANI POTTER, Principal of the Royal Academy of Music, died in London, aged 79 years. He

had been a pupil of Beethoven, and succeeded Dr. Crotch as Principal of the Royal Academy of Music in 1833.

October 18th, CHARLES BABBAGE, Mathematician and Philosophical Mechanist, Professor and author, died in London, aged 79. He was the inventor of the "Difference," or Calculating "Machine," and for 11 years (1828-1839) Professor of Mathematics in the University of Cambridge. He was also a voluminous writer on Mathematical and other scientific topics.

October 23d, Rev. GUILLAUME DE FELICE, D.D., a French Clergyman, Author and Professor, died at Montauban, France, aged 68 years. He had been for 36 years Professor of Theology in the Protestant Theological Seminary at Montauban.

November 2d, Rev. J. GIBSON, D.D., died at Glasgow, of paralysis, aged 72 years. He had been for nearly 20 years Professor of Church History and Systematic Theology in the Free Church College at Glasgow.



THE UNIVERSITY OF STRASBURG.

THIS institution, the crowning work of the restoration of a lost part to the body politic, was inaugurated on the first of May amid great enthusiasm on the part of the German. Beginning its new career under the most favorable auspices, it promises to be one of the most prominent schools in the empire, and with its able and experienced corps of instructors, bids fair to rival in influence its well-known associates. Between forty and fifty of the most illustrious scholars of Germany have been secured for the resuscitated Alma Mater; and so carefully have the selections for the different "chairs" been made, that Berlin herself has reason to be jealous of her latest rival. But few of the professors connected with the former French faculties at Strasburg, have united themselves with the revived university, the greater number of the instructors having

been taken from other German universities. Able teachers, abundance of money, and a library which already numbers two hundred thousand volumes, combine to give the University of Strasburg a successful start on its new career. It must be remembered, however, that all these advantages have been derived from the power of the German empire; the University has yet to win its way to popularity among the people of the province which it adorns. It was not to be expected that the Alsatians, who had learned to consider themselves a part of the French nation, and whose country has lately been called by Gambetta "the cradle of French patriotism," should extend a friendly hand to the institution, whose mission is "to complete the annexation of the conquered provinces by means of German culture."

We learn from the "*Republique Fançaise*," that the invitations to the inauguration, which were sent to the authorities and clergy of Strasburg, were returned, with one or two exceptions, with remarks expressive of indignation and contempt. The people of Alsace have thus given evidence of their opposition to and hatred of the power that has arisen among them; but it seems scarcely probable that they will be able long to resist its influence. That the Germans do not overrate the effect of the regenerated University can be clearly shown by a reference to its former history. "From the time of its foundation to that sad day when its property was confiscated by the French republic, the University of Strasburg had been in an unusually flourishing condition. The two most celebrated and reactionary Austrian statesmen, Cobentz and Metternich, and the Bavarian minister, Montgelas, were Strasburg students during the last period of its existence as a university. Indeed, young men of rank from all nations flocked together at Strasburg immediately before the revolution. When it broke out, the contrast between German and French ways of thinking was so marked—Strasburg was still so German a city, and its university so strong a bulwark of German nationality—that the French officers deemed it incumbent upon themselves to arrest all the professors as 'aristocrats and fanatics.' These '*têtes carrées-Allemandes*' were so tough, that the thoroughly French selectmen openly con-

fessed the fruitlessness of their endeavors to nationalize them. ‘Whatever means have been used thus far to break the local spirit (*éspirt de localité*) of these people, it has yet been impossible to abolish all the abuses to which these federalists and anti-revolutionists cling.’ It was now one hundred and twelve years since Alsace had been united with France, and yet it had remained so German, that not even the guillotine and terrorism were sufficient to break the nationality of the province.” How to destroy this spirit which prompted the people to look to Germany as the Fatherland, was a question which troubled the French authorities. It received a partially satisfactory answer when, in 1794, the Commissioners of the French Republic killed the university, the hydra of Germanism, with the avowed purpose of stifling the Germanic spirit; and it was only after the university had been broken up, that the French succeeded in a measure in making the Alsatians forget that they were Germans. With the restoration of the university, it is but reasonable to expect that its influence will be felt as of old, and a change in the feeling of the inhabitants of the recovered provinces follow its establishment. The work to be accomplished will require, however, considerable time. Although only a portion of the educated classes have been Gallicized, it will be no slight task to gain over the lower orders, thoroughly German though they are; while their religious instructors, under orders from the church at Rome, are setting themselves against the change. Whatever the effect of the university on the inhabitants of Alsace may be, civilized humanity will be the richer by one more important factor in the development of intellectual cultivation.

S. S. W.

EDUCATION A DEBT.—Education is partly allopathic, partly homœopathic; often like cures like, and the doses to take effect must be infinitesimal. But if this were all, only the good could make virtue flourish around them, whereas now the sweetest flowers often cover the saddest ruins.

NAMES OF THE STATES.

A CORRESPONDENT having inquired why the States are called by their present names, and what are their derivation and meaning, an exchange answers as follows:

MAINE.—So called from the province of Maine, in France, in compliment to Queen Henrietta, of England, who, it has been said, owned that province. This is the commonly received opinion.

NEW HAMPSHIRE.—Named by John Mason, in 1639 (who, with another, obtained the grant from the crown), from Hampshire County, in England. The former name of the domain was Laconia.

VERMONT.—From the French “vert” “mont,” or green mountain, indicative of the mountainous nature of the State. The name was first officially recognized January 16, 1777.

MASSACHUSETTS.—Indian name signifying “the country about the great hills.”

RHODE ISLAND.—This name was adopted in 1644 from the Island of Rhodes, in the Mediterranean, because of its resemblance to that island.

CONNECTICUT.—This is the English orthography of the Indian word Quon-eh-ta-cut, signifies “the long river.”

NEW YORK.—Named by the Duke of York under color of the title given him by the English crown in 1664.

NEW JERSEY.—So called in honor of Sir George Carteret, who was Governor of the Island of Jersey, in the British Channel.

PENNSYLVANIA.—From William Penn, the founder of the colony, meaning “Penn’s Woods.”

DELAWARE.—In honor of Thomas West, Lord de-la-Ware, who visited the bay, and died there in 1610.

MARYLAND.—After Henrietta Maria, Queen of Charles I., of England.

VIRGINIA.—So called in honor of Queen Elizabeth, the “virgin queen,” in whose reign Sir Walter Raleigh made the first attempt to colonize that region.

NORTH AND SOUTH CAROLINA, were originally in one tract, called "Carlina," after Charles IX., of France, in 1504. Subsequently, in 1665, the name was altered to Carolina.

GEORGIA.—So called in honor of George II., of England, who established a colony in that reign in 1732.

FLORIDA.—Ponce de Leon, who discovered this portion of North America in 1512, named it Floriday, in commemoration of the day he landed there, which was the Pasques de Flores of the Spaniards, or "Feast of Flowers," otherwise known as Easter Sunday.

ALABAMA.—Formerly a portion of Mississippi Territory, admitted into the Union as a State in 1819. The name is of Indian origin, signifying "Here we rest."

MISSISSIPPI.—Formerly a portion of the province of Louisiana. So named in 1800, from the great river on the western line. The term is of Indian origin, meaning "long river."

LOUISIANA.—From Louis XIV., of France, who, for some time prior to 1763, owned the territory.

ARKANSAS.—From "Kansas," the Indian word for "smoky water," with the French prefix "arc," bow.

TENNESSEE.—Indian for "the river of the big bend," i. e., the Mississippi, which is its western boundary.

KENTUCKY.—Indian for "at the head of the river."

OHIO.—From the Indian, meaning "beautiful." Previously applied to the river which traverses a greater part of its borders.

MICHIGAN.—Previously applied to the lake, the Indian name for a fish-weir. So called from the fancied resemblance of the lake to a fish-trap.

INDIANA.—So called in 1802, from the American Indians.

ILLINOIS.—From the Indian "illini," men, and the French suffix "ois," together signifying "tribe of men."

WISCONSIN.—Indian term for a "wild-rushing channel."

MISSOURI.—Named in 1821 from the great branch of the Mississippi which flows through it. Indian term, meaning "muddy."

IOWA.—From the Indian, signifying the “drowsy ones.”

MINNESOTA.—Indian for “cloudy water.”

CALIFORNIA.—The name given by Cortes, the discoverer of that region. He probably obtained it from an old Spanish romance, in which an imaginary island of that name is described as abounding in gold.

OREGON.—According to some, from the Indian oregon, “river of the west.” Others consider it derived from the Spanish “oregano,” wild marjoram, which grows abundantly on the Pacific coast.

GEOGRAPHICAL NOTES.

UNITED STATES.—Objection has been brought against the name *Montana* as being a made-up word, and otherwise not fit to be bestowed on the Territory which it designates. It is, however, a true Spanish adjective form, meaning mountainous, and is very appropriately applied in this instance. Moreover, it actually occurs on a map of the New World accompanying a work published in Amsterdam in 1605, where it marks the present State of Maine. (See Raleigh and Keymis, *Voyage to Guiana*, 1598: No. 19 of the facsimiles numbered 1826 in Fred. Muller's “Catalogue of Books on America”—Amsterdam, 1872.) This proves Montana to be one of the oldest names on the Continent; and it would be well if equal justification could be found for the naming of Washington and Wyoming Territories.

—The late Prof. S. F. B. Morse left in his will \$1,000 to the American Geographical Society for the encouragement of Geographical research. There will certainly be no lack of home candidates for it: Clarence King, Prof. Hayden, Prof. Whitney, Major Powell, and their associates; Capt. Hall, Mr. Stanley, and now the corps of the Palestine Exploration Society—the rival of the English Palestine Exploration Fund—about to investigate thoroughly the country beyond Jordan. Persons, by the way, who are specially in-

terested in this last enterprise, can obtain full information from the general agent, Rev. James H. Dwight, 26 Exchange Place, Room 14, N. Y.

—Excellent stereoscopic views of Sitka, Fort Wrangell, and other places in Alaska, with portraits of Indians, illustrations of Indian life, and flying views from shipboard, have been taken by Mr. Muybridge, of San Francisco, and are procurable of him at \$3.00 (gold) per dozen. The same artist also has photographic views of the same subjects, 7x9, which cost \$1.25 each, in gold.

—Diamonds have been found in a gravel claim two miles east of Placerville, Eldorado County, California. That is to say, two stones have been picked up, at different times; the larger being worth from one to five hundred dollars, the smaller not more than thirty.

—The connection of New Orleans with Houston, Texas, by rail, should be completed by contract in April, 1873. The portion on which work is now actively going forward is from Berwick's Bay to Orange on the Sabine River, *via* New Iberia and Vermilionville, (La.) In 1887, when Port Lavaca will doubtless have a Union depot for the shipment of passengers and freight to the Pacific or the Atlantic, one can look back on what two centuries have accomplished since La Salle attempted his fatal journey from that place to the Mississippi; and it will be highly in order to erect a statue to this greatest of American explorers on the site of his Fort St. Louis, of unhappy memory. The International Railroad of Texas, of which 100 miles are now in operation N. E. from Hearne, will, when completed, connect Fulton, (Ark.) on the Red River, with Laredo (Texas) on the Rio Grande.

SOUTH AMERICA.—The *Hassler* expedition left Montevideo on the evening of the 28th February, and on March 16 reached Sandy Point, Straits of Magellan—a Chilian convict settlement, having over 1,000 inhabitants, and surrounded by mountains covered with thick woods (Punta Arenas of the school atlases). A stop was made on the way at Port St. Antonio, St. Mathias Bay, the best intermediate harbor,

though having a tidal rise and fall of 25 feet, and being entirely uninhabited. "It is," says Count Pourtales, "a most desolate country, like all Patagonia, without a tree or a drop of fresh water." Here, nevertheless, there were found many objects of interest, and the tracks of ostriches and guanacoes were observed. The Straits were entered on the 13th of March, and anchor cast in Possession Bay—a harbor fifteen miles in diameter, formed by a depression in the northern shore, Terra del Fuego being faintly visible to the south. An excursion was made to Mt. Aymond, ten miles distant to the N. W. by W., a height something under 1,000 feet, and which proved to be an extinct volcano, as also the four lower adjoining peaks called the "Asses' Ears." This is the first discovery of the kind outside of the Andes range. A guanaco was shot by this party. Prof. Agassiz visited a smaller and nearer height, finding convincing proofs of glacial action from the south northward in the scratched and polished pebbles and terminal moraines. He also came upon a salt water lake at an elevation of 200 feet. On Magdalena and Elizabeth Islands additional evidence of glaciers was obtained. The former is the haunt of vast numbers of gulls, cormorants, and penguins, which furnished specimens in abundance. Sea-lions, too, abound in the Straits and are easily caught.

EUROPE.—M. Philarète Chasles writes to the *Athenæum* of May 4:

"What said M. Gambetta the other day? 'Frenchmen,' says he, 'do not travel enough. What we are most ignorant of is the geography of our own country.' True; and they abhor not only traveling, but reading books of travel. Unfortunately for himself, the ex-Dictator furnished an excellent proof of that ignorance. In the same allocution to the citizens of Angers he uttered this flattering phrase:—'Your attitude this day sufficiently shows that the inhabitants of the Département du Maine have been shamefully slandered.' Angers belongs to the Province of Anjou, as most school-boys know; and the eloquent lawyer who commits such a blunder has a good deal to learn before he attempts to teach others. A mistake like this is only laughable in an after-dinner speech; but the complete ignorance of one's country and its geography assumes a more dangerous character when, in a military despatch, one mistakes Epinay-sur-Orge for Epinay-lez-Saint-Denis."

—Similar mistakes, it appears, the French have not been exempt from for a long period. The *Nation* of May 9 prints the following passage from the “Mémoire statistique du département de Rhin et Moselle” of Prefect Boucquéau, a Belgian appointed to that department by the first Napoleon when consul, in the year XII. of the Republic. M. Boucquéau had this story to communicate:

“In 1688, Marshal Boufflers besieged and bombarded the city of Coblenz without being able to take it, but Little Coblenz (Lützel-Coblenz), situated on the left bank of the Moselle, was totally destroyed. Although it has never been rebuilt since, it continues to figure in large letters on the geographical maps, and when, in 1794, the French seized Coblenz, they made a special requisition on the Little Coblenz which they had destroyed a century previous. This mania of our modern maps, which are always copied after older ones, for designating as important places localities which are only ruins, has often been the cause of like mistakes: sometimes a quartermaster, map in hand, has assigned lodgings to a battalion which, after having marched a league, found nothing but ruins, or an old tower in the city or chateau allotted to it for its winter quarters.”

—Russia is to take a national census in late autumn of this year, and the news, as is not uncommon, disturbs the minds of the common people, who think only of taxes and conscription. Here are some figures from the late German censuses taken Dec. 1, 1871, which teachers would do well to note in the margins of their geographies: Total population of Prussia, 24,642,386 (of which 12,051,232 are males, and 12,490,776 are females), against 23,971,337 in 1867, or an average rate of increase equal to 2.8 per cent. The province of Brandenburg, however, which has 2,863,509 inhabitants, increased 5.39 per cent., and Westphalia 3.96 per cent.; the Rhine province, 3.57, Silesia 3.39, and so down to Pomerania, 0.98. The full results of this census will not appear before December. Baden shows 1,461,428 inhabitants (of which 712,769 are males, and 718,665 are females), an increase of only 1.84 per cent. since 1867, and this chiefly in the large towns. While the towns above 5,000 inhabitants (16 in all) have added 25,400 to their number, 97 towns of smaller size have lost 2,646; and the whole gain in the rural districts only amounts to 1,058. Emigration took away 17,143 persons. Mannheim, the most populous city, has 39,614 inhabitants; Carlsruhe, 36,622.

The total population of Bavaria is 4,850,038, an increase of only 25,617 since 1867 in spite of the freedom accorded in the interval both to industry and to marriages. It is said in explanation, however, that absentees were reckoned in the census of 1867, and that the 20,000 men now on garrison duty in Alsace-Lorraine should be added to the figures of last year. Nevertheless, emigration and exceptional mortality among infants have done much to check the growth of population in Bavaria.

AFRICA.—News was received in London on May 1 from Bombay, and on May 3 from Aden, that the *Herald's* explorer, Mr. Stanley, had joined Livingstone at Ujiji. On the 19th the *Herald* spun out a meagre dispatch, in whose contents it is impossible to place implicit confidence, though it may be entirely veracious. Mr. Stanley's last account of himself left him at Ogara, a twenty days' journey from Unyanyembe, the half way-station between Ujiji and Zanzibar. This was about Sept. 20, 1871. The new information would indicate that he was occupied till Nov. 20 in traversing the twenty days' course from Ogara to Ujiji; that he found Livingstone temporarily absent on an exploring expedition, having "established his camp at Myemba, which is twenty days' march from Ujiji, and about midway between the lakes of Tanganyika and Victoria Nyanza;" but that prior to the 12th of January, 1872, Livingstone had returned and welcomed Stanley, "and the two white men had taken up their residence together." The authority for these statements is one "Seyd ben Majid, one of the wealthiest and most powerful Arab chieftains at Ujiji," who left that town Jan. 12 and reached Unyanyembe Feb. 5. That is to say, he accomplished in 23 days what Stanley had been nearly three months in doing (Aug. 30—Nov. 20). Stanley's delay he accounted for by saying that he "had been compelled to get to Ujiji by a very circuitous route, as the regular caravan route had been rendered impassable on account of a native war among the local chieftains." But Majid's rapidity of movement is hardly explained by a subsequent statement that his object in leaving Ujiji was to open the blocked route; that his enemy, a chief named Misambo, had taken

up a position midway intending to give him battle, and had fallen back before him as he advanced. Expecting a conflict, Majid was led on to Unyanyembe without intending it; which he gives as the reason why he brought no letters from Stanley and Livingstone. All this was told at Unyanyembe to Sheikh ben Nasib, who, Feb. 8, sent off "his trusty slave" Sa'eed to his brother Abdallah ben Nasib, a merchant in Zanzibar, "with these welcome and authentic tidings." The messenger arrived in Zanzibar April 2—that is to say, doing in two months what Stanley (more encumbered, of course,) was three months in doing. This is the whole story, and, circumstantial as it is, it is certainly not above suspicion. If communication between Ujiji and the coast is so regular and easy, it is almost incredible that in three years Livingstone did not contrive to send a single letter to Zanzibar. Lieut. Dawson's "Search and Relief Expedition" has not turned back on account of the news, which met it at Zanzibar, and which the steamer *Abydos* that brought the party out carried to Bombay.

—Who Mr. Stanley is, is a question which our readers may very well ask, and fortunately we are able to give them some particulars of his career. His full name, as we mentioned in our April notes, is Herbert M. When a mere boy, having an insatiable longing for adventure, he ran away from home and "fought his way all over Europe," walking where he had not the means to ride, and often sleeping in the open fields. While thus engaged he was brought before a French court "for traveling in exciting times without a passport, and defended himself and secured his own release." Before he returned to America, he had acquired a knowledge of the modern languages and to some extent of the ancient. The employment into which he naturally fell on arriving at home was that of a journalistic bohemian. As a clerk in the Fort Fisher expedition under Gen. Terry, he sent a glowing account of the engagement to a New York paper. He next went to Turkey, but in an excursion through the country fell among brigands, and was maltreated and robbed of between \$4,000 and \$5,000 gold, which he vainly endeavored to recover through the American consul at Constantinople. His return to this country took him

through a portion of France and Spain on foot and destitute. Stopping a few days in New York, he commenced a lecturing tour, with Turkey for his subject, and reached St. Louis in the winter of 1866. Meeting with no success in this enterprise, he joined Gen. Hancock's expedition into the Indian country as correspondent of a St. Louis journal, and had occasion to describe the burning of the Cheyenne and Kiowa village on Pawnee Fork; next joined the Peace Commissioners, and was at the famous councils held at North Platte, Fort Laramie, and Medicine Lodge Creek. It was subsequent to this that he became definitively attached to the corps of the N. Y. *Herald*. His first great mission was assigned him very unexpectedly (he sailed in a few hours after it was broached to him), and consisted in accompanying the British expedition for the relief of the Abyssinian captives. He overtook it in Egypt, went with it to Magdala, and "sent his couriers across country ahead of Gen. Napier's," so that the *Herald* published the first news of the British success, and had the satisfaction of lending it to the London *Times*. After this, he went to Spain, where a correspondent of the Boston *Journal* met him in October 1869, and together they went to Valencia, and witnessed the "nine days' fight." As he stood on the balcony of the house in which they were besieged, a bullet took a wisp of hair from his head before he would retire, when, coolly closing the shutters, he resumed his reading of Carlyle's "Frederic the Great." His next professional service was reporting the opening of the Suez Canal; in May of 1870 he was traveling in the interior of Persia, having previously "done" the Holy Land. He could scarcely have recovered from the fatigue of his Eastern travel, when summoned by the *Herald's* telegram to "find Livingstone." In person, Mr. Stanley is described as a "short, smart, active young man of sturdy build, indefatigable limbs, and unbending will," whose "intense, sparkling face has been fanned by almost every breeze in almost every climate." He is undemonstrative, unboastful, and self-possessed; has all the audacity and brilliancy of the bohemian, his "vigorous imagination," small scrupulousness about facts, and want of mental and literary discipline.

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Periodical Literature.—*Overland Monthly* for June : "Pavy's Expedition to the North Pole." [See, under head of United States, the notice of Pavy in the MONTHLY for April.] *Ladies' Repository* for June : "Corinth ; the City of Idolatry," by Prof. J. S. Lee ; "Recol-

lections of Buenos Ayres," by Mrs. C. L. Weeks. *Littell's Living Age*, May 11: "India in Jamaica," (from the London *Economist*.) [This is a remarkable article on Sir J. P. Grant's administration of Jamaica since the revolt suppressed under Gov. Eyre. It shows how much the personal character of a ruler affects the questions whether slavery or freedom is the best condition of society in the tropics as elsewhere; whether the freed blacks will work; and whether the superior race can live in harmony with the race that has lately been in subjection to it.]

—Captain Burton will sail on or about the 17th of May to Iceland, upon which country, its language and history, he is about to produce an important work. He will be accompanied by the Earl of Dunraven, who is also well known in literature.—*London Publishers' Circular*, May 16.

THE PHILOSOPHER AND HIS DAUGHTER.

[THE following charming poem, which has the merit of combining "instruction and amusement," and of showing the estimation which usually attends learning, was written by Shirley Brooks, and first appeared in the *Illustrated London News*.]

A SOUND came booming through the air !
" What is that sound ? " quoth I.

My blue-eyed pet, with golden hair,
Made answer, presently,
" Papa, you know it very well ;
That sound—it was Saint Pancras bell."

" My own Louise, put down the cat,
And come and stand by me ;
I'm sad to hear you talk like that,—
Where's your philosophy ?
That sound—attend to what I tell—
That sound was not Saint Pancras bell.

" Sound is the name the sage selects
For the concluding term
Of a long series of effects,
Of which that blow's the germ.
The following brief analysis
Shows the interpolations, Miss.

" The blow which, when the clapper slips,
Falls on your friend, the bell,
Changes its circle to ellipse
(A word you'd better spell),

And then comes elasticity,
Restoring what it used to be.

" Nay, making it a little more,
The circle shifts about,
As much as it shrunk in before,
The bell, you see, swells out ;
And so a new ellipse is made,
(You're not attending, I'm afraid.)

" This change of form disturbs the air,
Which in its turn behaves
In like elastic fashion there,
Creating waves on waves ;
Which press each other onward, dear,
Until the outmost finds your ear.

" Within that ear the surgeons find
A tympanum, or drum,
Which has a little bone behind—
Malleus, it's called by some ;
Those not proud of Latin grammar,
Humbly translate it as the hammer.

" The wave's vibrations this transmits
To this the incus bone,
(Incus means anvil, which it hits,)
And this transfers the tone
To the small *os orbiculare*,
The tiniest bone that people carry.

" The *stapes* next—the name recalls
A stirrup's form, my daughter—
Joins three half circular canals,
Each filled with limpid water ;
Their curious lining you'll observe,
Made of the auditory nerve.

" This vibrates next—and then we find
The mystic work is crowned ;
For then my daughter's gentle mind
First recognizes sound.
See what a host of causes swell
To make up what you call the 'bell.' "

Awhile she paused, my bright Louise,
And pondered on the case ;
Then, settling that he meant to tease,
She slapped her father's face.

" You bad old man, to sit and tell
Such gibbergosh about a bell ! "

INFLUENCE OF CLIMATE UPON MAN.

AT a recent meeting of the New York Liberal Club, some interesting remarks were made on this subject. Man, in his delusion, said a speaker, generally opposes his dependency upon nature. Being himself her child, he thinks that no impression is strong enough to leave a durable effect upon him. But experience teaches the very opposite. It shows that man, to a certain extent, was always subject to the climate. It is not generally known, but it is nevertheless true, that a pure, moderately dry air generally produces great mental sprightliness, especially with full-blooded persons. A cloudy and moist atmosphere, on the other hand, produces mental relaxation, and, with many, melancholy. This explains why suicides so often happen when the sky is overcast. The depressed mental state is thus further enhanced. Villeneuve reports that of every ten suicides which were committed in Paris during two years, nine took place in the rainy season. The influence of the climate is also well exemplified in the case of mountaineers. They are quicker, more active, and excitable.

From the unequal action upon the body, and its reaction upon the mind, the character of various nations may be explained.

The influence of a moist atmosphere is strikingly illustrated in the case of individuals who have been weakened by previous illness, from the great number of suicides committed at the close of the year 1828, in the Dutch places Gröningen and Sneek. Most of the unfortunates had suffered from the epidemics of 1826 and 1827. In the city of Sneek, with 6,000 inhabitants, not less than four suicides took place in one week, among those was a boy of eight years.

The Swiss naturalist, Desor, in a recent essay, describes the climate of North America as very changeable and dry. After having explained a number of phenomena produced by the climate in general, he depicts its influence upon the inhabitants of this country. He derives from the climate his activity, acuteness, his tall stature, his eagerness for gain, his practical talent, and his love of adventure.

It is also well known that the inhabitants under a preponderating clear sky possess more talent for art, while those under a gloomy sky have more propensity for speculation and thought.

WHY TIMBER IS PAINTED.

WHEN water is applied to the smooth surface of timber, a thin layer of the wood will be raised above its natural position by the expansion or swelling of the particles near the surface. In colloquial phrase, working men say that when water is applied to a smooth board, the grain of the timber will be raised. Every successive wetting will raise the grain more and more; and the water will dissolve and wash away the soluble portions with which it comes in contact. As the surface dries, the grain of the timber at the surface, having been reduced in bulk, must necessarily shrink to such an extent as to produce cracks. Now, if a piece of oil-cloth be pasted over the surface, the timber will be kept quite dry. Consequently the grain of the wood will not be subjected to the alternate influences of wet and heat. As it is not practicable to apply oil-cloth already made, a liquid or semi-liquid material is employed for covering the surface, which will adhere firmly, and serve the purpose of oil-cloth in excluding water that would otherwise enter, to the injury of the work. Metallic substances are painted to prevent oxidation or rusting of the surfaces which may be exposed to moisture.

It is of primary importance to make use of such materials as will form over the surface a smooth and tenacious pellicle, impervious to water. Any material that will not exclude water sufficiently to prevent the expansion of the grain of the timber, or the oxidation of metallic substances, must be comparatively worthless for paint. Linseed-oil possesses the property of drying when spread on a surface, and forming a tenacious covering, impervious to water. Spirits of turpentine, benzine, benzole, and certain kinds of lubricating oil, all of which are frequently used in preparing

paint, will not form a covering sufficiently tough and hard to resist the action of the water ; for which reason, the paint that is made by employing these volatile materials will be found comparatively worthless for outside work. A pigment is mingled with the oil to prevent the timber to which the paint is applied from absorbing the oil. The design is not to saturate the wood with oil, but simply to cover the surface with a coating resembling a thin oil-cloth.

EDUCATIONAL INTELLIGENCE.

THE SUMMER EDUCATIONAL MEETINGS.

THE NATIONAL EDUCATIONAL ASSOCIATION will hold its next annual meeting in the City of Boston, Mass., on the 6th, 7th, and 8th days of August, 1872. The forenoon and evening of each day will be occupied by the General Association, and the afternoon of each day by the four Departments. The exercises will be held in the Lowell Institute Hall and in the Hall of the Institute of Technology.

GENERAL ASSOCIATION.

1. Methods of Moral Instruction in Public Schools, by Dr. A. D. Mayo, Cincinnati, O.
2. The Co-Education of the Sexes in Higher Institutions. [President White, of Cornell University, will present this topic, if other duties permit him to attend the meeting.]
3. Compulsory School Attendance, by Newton Bateman, State Supt. Pub. Instruction, Ill. Discussion to be opened by J. P. Wickerham, State Supt. Com. Schools, Pa.
4. The Examining and Certificating of Teachers, by John Swett, Ass't Supt. Schools, San Francisco, Cal.
5. System of Normal Training Schools best Adapted to the Wants of Our People—Report by Wm. F. Phelps, Minn., Ch'n of Com.
6. The Educational Lessons of Statistics, by Hon. John Eaton, Jr., National Commissioner of Education.
7. Drawing in the Public School, by Walter Smith, State Director of Art Education, Mass.
8. Comparison in Education, by John D. Philbrick, Supt. Public Schools, Boston.

ELEMENTARY DEPARTMENT.—*Miss D. A. Lathrop, Cincinnati, O., Prest.*

1. Objective Teaching—Its Scope and Limit, by N. A. Calkins, Ass't Supt. Schools, New York City.
2. English Grammar in Elementary Schools, by M. A. Newell, Principal of State Normal School, Baltimore, Md.
3. Instruction in Natural Science in Elementary Schools.
4. Adaptation of Froebel's Educational Ideas to American Institutions, by W. N. Hailman, Louisville, Ky.

NORMAL DEPARTMENT.—*C. C. Rounds, Farmington, Me., President.*

1. The Proper Work of the Normal School, by J. C. Greenough, Principal State Normal School, Rhode Island.
2. Professional Training in Normal Schools, by T. W. Harvey, State School Commissioner, Ohio.
3. The Normal Institute, by A. D. Williams, Principal State Normal School, Nebraska.
4. Normal Work among the Freedmen, by S. C. Armstrong, Hampton, Va.
5. Model Schools—Their Uses and their Relation to Normal Training.

DEPARTMENT OF SUPERINTENDENCE.—*John Hancock, Cincinnati, O., President.*

1. The Extent, Methods, and Value of Supervision in a System of Schools, by H. F. Harrington, Supt. Schools, New Bedford, Mass. Discussion to be opened by J. L. Pickard, Supt. Schools, Chicago, Ill.
2. The Early Withdrawal of Pupils from School—Its Causes and Remedies, by W. T. Harris, Supt. Schools, St. Louis. Discussion to be opened by A. P. Stone, Principal of High School, Portland, Me.
3. Basis of Percentages of School Attendance—Report of Committee.

DEPARTMENT OF HIGHER INSTRUCTION.—*D. A. Wallace, Monmouth College, Ill., President.*

1. College Degrees—Report of Committee, Pres. D. A. Wallace, Chairman.
2. Greek and Latin Pronunciation—Report of Committee, Prof. H. M. Tyler, of Knox College, Ill., Chairman.
3. The Method of Teaching Physics by Laboratory Practice and Objectively, by Prof. Ed. C. Pickering, of Boston.
4. Modern Languages—Their Place in the College, College Preparatory, and Scientific Preparatory Courses, by Pres. J. B. Angell, of Michigan University.
5. How to Teach English in the High School, by Prof. F. A. March, of Lafayette College, Pa.
6. General Education as a Basis of Professional Training, by Prof. John S. Hart, of Princeton College, N. J.

The daily programme will be so arranged as to afford time for the thorough discussion of the topics of the greatest interest and importance, and each discussion will be opened by a person selected for the purpose. All who may be willing to participate in these discussions, are requested to come prepared to express well matured opinions in the fewest possible words.

Considerable difficulty has been experienced in making satisfactory railroad arrangements, but it is expected that at least two of the through lines from the West will agree to sell round-trip tickets at reduced rates. The local committee reports that nine good hotels agree to entertain guests at reduced rates—varying from \$1.50 to \$3.50 a day.

NEW YORK STATE TEACHERS' ASSOCIATION, twenty-seventh annual meeting, will be held at Saratoga Springs, July 23d, 24th, 25th.

On the first day of the meeting, after the organization has been effected, a report will be read on "the Condition of Education," and in the evening two papers will be read, one on "Scholarship Estimated in Figures," by Geo. H. Stone, and another, a "History of the Philosophy of Pedagogic," by Charles W. Bennett, of the Syracuse University.

On Wednesday, a report will be read in the morning on "Educational Statistics," and afterward papers entitled as follows: "Reading," "Music in our Schools," "Preparation for Business," and "High Schools." In the afternoon, a plan for reviving the *Teachers' Journal* will be discussed, followed by the following papers: "The Relation of Modern Philosophical Thought to Popular Education," "The Public School—What it has Done, What it is Doing, What it may Do," "Physical against Mental Training," and "Principles of Education as advocated by Herbert Spencer." In the evening, a paper will be read entitled "Teachers' Qualifications," and an address will be made by B. G. Northrop, of Connecticut, on the "Schools of Europe—What we May and Ought to Learn from Them."

On Thursday morning, a report will be made on "Improved Methods in Education," followed by papers entitled "Aiming at What?" "A Plea for Phonography," and "Pre-

servative Effects of Education." In the afternoon, Edward Smith, of Syracuse, will read a paper on the "True Principles and Practice of School Discipline," and an address will be made by J. B. Dickinson, of Massachusetts, concerning the "Relation of Elementary to Scientific Knowledge." Various reports will then be made, and in the evening select readings and recitations will be given by Messrs. W. M. Jelliffe and W. L. Richardson, of Brooklyn; W. C. Lyman, of New York, and O. H. Fethers, of St. Louis,—to be followed by a social reunion.

In order that there shall be no lack of subject matter for profitable investigation, the following questions are submitted to be discussed as the pleasure and wisdom of the Association shall determine:

I. What should be the proper work of Teachers' Institutes? Or more definitely: 1. What should not be done? 2. What should be done?

II. What should be the definite object of questioning pupils in recitation? Specially: 1. As it regards the teacher. 2. As it relates to the pupil. 3. As it concerns the subject-matter under consideration. 4. What are the Principles which should be followed in the Art of Questioning?

III. What should be accepted as thoroughness in teaching? 1. The amount of subject-matter passed over by the pupil. 2. The degree of the pupil's familiarity with the subject-matter. 3. The facility of expression shown by the pupils when reciting. 4. The frequency of reviews.

IV. What should be the special purpose of examinations? Relating to: 1. Their frequency. 2. The manner of conducting them—oral or written. 3. The nature of the questions—simple or exhaustive.

Arrangements have been made with a large number of railroad and steamboat companies to carry members of the Association at half-fare rates.

THE GERMAN AMERICAN TEACHERS' CONVENTION is to be held this year in Hoboken, N. J. The precise date is not yet made known—it is expected to be early in August. It is to continue in session for three days. The discussions will be in German except on the afternoon of the third day.

THE PENNSYLVANIA STATE TEACHERS' ASSOCIATION will

meet on the 21st, 22d and 23d of August, at the Academy of Music, in Philadelphia. Edw. Shippen, the Chairman of the Committee of Invitation, extends a cordial invitation to all.

The fourth annual meeting of the AMERICAN PHILOLOGICAL ASSOCIATION will be held in Providence, R. I., commencing on Tuesday, July 23d, at three o'clock, p. m. The annual address will be delivered by the president of the Association, Prof. W. W. Goodwin, of Harvard University, on Tuesday evening, July 23d.

CURRENT PUBLICATIONS.

DR. COLLIER'S GREAT EVENTS OF HISTORY, famous in England, has been prepared for American Schools, by an experienced and well qualified American Teacher.

The book, in its American form, gives (1) a connected outline of the history of the world from the creation of man, down to the present time. (2) It describes the most important events, in the order in which they occurred, not in a bare statement, but in sufficient detail to make a pleasant, connected and interesting story. (3) To enliven the book, the dwellings, furniture, domestic customs, and mode of life, are noticed to give an idea of the progress of civilization. (4) The objections to the histories prepared for the student are that they are either too prolix or consist of bare statement, so told as to lack interest as a reading book. This book is a happy medium, avoiding unimportant detail, as well as dry enunciation of facts. (5) The book is divided into chapters, preceded by a list of the principal heads, and the chapters are separated into short sections for the convenience of the student.

"The Great Events" is eminently calculated not only to give a clear, connected outline of history, but to create in the student a taste for historic knowledge.

MESSRS. WILSON, HINKLE & Co. have published "A

School History of the United States," by W. H. Venable. This work faithfully sketches the history of our Nation as a whole, not the history of sections, States, special interests, or particular men. Its style is good, its matter does not include the nonsense and absurdities too often found in our School Histories, and its mechanical execution is no less excellent—the portraits, pictures, maps, and typography being very superior.

MESSRS. COWPERTHWAIT & CO. are making good progress with "Monroe's Series of Readers." The Sixth Reader is just out, the Fourth is nearly finished, and the three lower books will follow in the Autumn. The Fifth we announced some time ago, promising a review of the Series, when completed.

MESSRS. HARPER & BROTHERS have issued the "Annual Record of Science and Industry for 1871." It is edited by Spencer F. Baird, of the Smithsonian Institution. The work furnishes a brief, yet sufficiently full, mention of the more important discoveries in the various departments of Science during the year 1871, selecting only such as are likely to excite general interest, or to be of lasting importance. No American has better opportunities than Mr. Baird for compiling a reliable and useful work of this kind. The same house has published "A Smaller Ancient History of the East." It is from the earliest times to the Conquest by Alexander the Great, including Egypt, Assyria, Babylonia, Media, Persia, Asia Minor, and Phœnicia. By Philip Smith. It is illustrated by many wood engravings. Also, "Shakespeare's Julius Cæsar, edited by William J. Rolfe."—"The Desert of the Exodus: Journeys on foot in the Wilderness of the forty years' Wanderings," undertaken in connection with the ordnance survey of Sinai and the Palestine exploration fund, by E. H. Palmer. It gives many maps and illustrations from drawings and photographs taken on the spot.—Another of Miss Mulock's works, entitled "A Brave Lady," with illustrations.

MR. L. W. SCHMIDT has just published "A Pocket Dictionary of Technical Terms used in Arts and Manufactures."

It is abridged from the Technological Dictionary of Rumpf, Mothes and Unverzagt, with the addition of Commercial terms. It is in the English, German and French languages. It is in three parts, in popular form—paper covers—and is sold at the moderate price of \$3.25.

To the technical man, to the manufacturer, to the merchant, and to the student, the work will become indispensable. The names of the editor and contributors guarantee its fidelity and accuracy.

WE may surprise some readers now; but five years hence our words will, we trust, be confirmed, when we say that in America the new journal of the year for which and from which we have most hope, is not one destined for what please to call themselves the literary classes. In truth, there are no special literary classes in America. "The Southern Workman," just now established at Hampton, Va., expects to be read, not by the cloyed and satiated white man, who does not know what to do with his newspapers and magazines; but by the black men and women and children, to whom reading is still a luxury, and who know as little of literature as Cadmus knew. The editor is Gen. Armstrong. He was born in the midst of a race who had just been called from barbarism, by such distinguished leaders as his father, one of the earlier missionaries in the Sandwich Islands. In the command of negro troops, who never failed to follow where he never failed to lead, Gen. Armstrong showed that he had learned to deal with the colored race in a fit school. Since the war, at the head of the Hampton Institute, he has been training their picked men and women to be teachers. And now, as a part of his enterprise, he undertakes the monthly journal, which, with picture, song, story, and lesson is to address specifically the men and women on whom the prosperity of half America for the next generation depends. Not one-half of the year's enterprises in journalism can challenge comparison for importance with one which has a purpose so profound as this.
—*Old and New.*

A LATE number of the *Messager de Paris* contains a very remarkable self-criticism on the decay of French nationality.

"Under the restoration," it says, "we had a Chalaubriand, a Roger-Collard, Foy, Benjamin Constant among the Opposition, names which gave to their era a lustre and a dignity, which we in vain look for in the following periods. Under Louis Philippe the Opposition had at least a Thiers, Odilon-Barrot, Ledru-Rollin, and Berryer. But the revolution of 1848 produced only Blanquis, Barbès, Félix Pyats—what a deep, immense fall! The 4th of September, 1870, gave us only a Gambetta, the representative of political Bohemianism! It is undeniable that from 1815 to 1870, our statesmen have succeeded each other in a descending scale, and heaven knows where we shall stop on this fatal inclined plane. Generations of statesmen are replaced by generations of adventurers. The year 1830 gave us diminutives of 1815; 1848, diminutives of 1830; 1870, diminutives of 1848. We are appalled to think of the monstrous dwarfs which new revolutions will beget. If we do not close the era of revolutions, we shall be made a people in which nobody governs, and nobody obeys; in which only incapacity rules above, and unbridled license below."

MISCELLANEA.

HON. JOHN EATON, U. S. Commissioner of Education at Washington, D. C., has just had the degree of "Doctor of Philosophy," conferred upon him by Rutger's College, New Brunswick, N. J.

OXFORD UNIVERSITY celebrates this year the 1000th anniversary—probably fabulous—founded by King Alfred.

SIR CHARLES LYELL is seventy-five years old. He graduated at Oxford, and commenced studying law, which he soon forsook for geology.

MR. GOLDWIN SMITH believes the whole human race is destined to embrace vegetarianism. In this he walks by faith—with hardly a glimpse of light.

WOMEN are now admitted to fifty American colleges.

BIBLE READING IN PUBLIC SCHOOLS.

**IMPORTANT DECISION OF THE SUPERINTENDENT OF PUBLIC
INSTRUCTION.**

No. 1985. State of New York, Department of Public Instruction. 1. On the appeal of Thomas McMahon and others, Board of Trustees of the First Ward of Long Island City, Queens County, against John Fahnstock and others, Board of Education of Long Island City. 2. Owen McEleamey and others against The same. 3. Edward McBennett against The same. Before the Superintendent.

THESE THREE APPEALS are all against the same respondents, and, as they involve but one and the same question, they may conveniently and properly be considered and disposed of together. The respondents compose the Board of Education of Long Island City, a body created under the provisions of Chapter 461, Laws of 1871, for the general local supervision and control of the Public Schools of Long Island City. The ground of appeal, in all these cases, is the action of the respondents under a provision in a By-Law adopted by them for the conduct of the Schools under their charge. That provision is in the following words: "The daily opening exercises shall consist of the reading of a portion of the Holy Scriptures, without note or comment."

The appellants, in the first of the above entitled cases, who are the Trustees of the First Ward of Long Island City, complain of the enforcement, under the direction of the respondents, of the provision of the By-Law above cited, by compelling the pupils in the School of the First Ward to be present at the reading of the Bible therein, under penalty of expulsion from the school in case of their non-attendance at such reading. The appellants allege that the regulation was directed to be so enforced, against their protest, and that of many of the scholars and of the parents or guardians of those scholars.

The appellants, in the second appeal, complain of the

threatened expulsion, in some instances, of their children from the First Ward School, because the appellants forbade their attendance upon the religious exercise in question, and in other instances they show that their children were actually expelled from that school, for refusing, in obedience to the direction of their parents, to attend school when the Bible was read.

The third appeal is by a resident of the Second Ward, of Long Island City, who alleges that his child was expelled from the school of that ward, for refusing, under direction of the appellant, to attend at the reading of the Bible therein. In this case an attempt has been made to show that the pupil left the school voluntarily, but it is manifest, from the evidence, that the enforcement of the regulation in question caused his withdrawal, and that he was refused permission to remain in the school except upon the condition of compliance with the requirements of the rule by attending when the Bible was read.

The question presented by these cases is not a new one in the history of the Public Schools of this State. The claim, by Trustees, of the right to enforce the attendance of pupils in the Public Schools, upon religious exercises therein, has been frequently passed upon in this department, by my predecessors in office, and by myself, and it has uniformly been held that no such right legally existed.

The following observations in a former decision rendered by me, are equally applicable here: "The object of the common school system of this State is to afford means of secular instruction to all children over five and under twenty-one years of age resident therein. For their religious training the State does not provide, and with it does not interfere. The advantages of the schools are to be free to them all alike. No distinction is to be made between Christians, whether Protestants or Romanists, and the consciences of none can be legally violated. There is no authority in the law to use, as a matter of right, any portion of the regular school hours in conducting any religious exercise, at which the attendance of the scholars is made compulsory. On the other hand, there is nothing to prevent the reading of the Scriptures or the performance of

other religious exercises by the teacher, in the presence of such of the scholars as may attend voluntarily, or by the direction of their parents or guardians, if it be done before the hour fixed for the opening of the school, or after the dismissal of the school. These principles were set forth by Secretary Spencer, more than thirty years since. In a decision made by that able officer in the year 1839, in which he sustained the action of the trustees of a school district in permitting a teacher to have prayers in the school, on condition that they should be had previous to school hours, the following remarks occur: 'Both parties have rights; the one to bring up their children in the practice of publicly thanking their Creator for His protection, and invoking His blessing; the other, of declining, in behalf of their children, the religious services of any person in whose creed they may not concur, or for other reasons satisfactory to themselves. These rights are reciprocal, and should be protected equally, and neither should interfere with the other. Those who desire that their children should engage in public prayer, have no right to compel other children to unite in the exercise against the wishes of their parents.'

"Neither the common school system, nor any other social system, can be maintained, unless the conscientious views of all are equally respected. The simple rule, so to exercise your own rights as not to infringe on those of others, will preserve equal justice among all, promote harmony, and insure success to our schools." (Code of Public Instruction, p. 355.) The same view of this subject was expressed by my immediate predecessor, the late Hon. V. M. Rice, who, in a decision rendered by him, February 5th, 1866, said: "A teacher has no right to consume any portion of the regular school hours in conducting religious exercises, especially where objection is raised. The principle is this: Common schools are supported and established for the purpose of imparting instruction in the common English branches; religious instruction forms no part of the course. The proper places, in which to receive such instruction, are churches and Sunday-schools, of which there is usually a sufficient number in every district. The money to support schools comes from the people at large, irrespective of sect

or denomination. Consequently, instruction of a sectarian or religious denominational character must be avoided, and teachers must confine themselves, during school hours, to their legitimate and proper duties." (Code of Public Instruction, p. 349.)

The action of the Board of Education of Long Island City, in directing the reading of a portion of the Bible, as an opening exercise in the schools under their charge during school hours, and in excluding pupils from those schools, or any of them, on the ground of declining to be present at such reading, has been without warrant of law.

The appeals must therefore be, and are hereby sustained. The proper course for those who are dissatisfied with the rule established by the decisions above cited, and who desire a different or more explicit regulation on the subject, is to apply to the legislature for such enactments as will meet their views. Contentions about the construction of general principles of law might thus be obviated by plain statutory provisions.

All persons, otherwise entitled to attend any of the schools of Long Island City, and who have been and are excluded therefrom for a refusal to be present at the reading of the Bible therein, have the right to be admitted to such schools upon the same footing as other pupils rightfully attending them; and it is, therefore, the duty of the said Board of Education to see that the right of all such persons, in that respect, is accorded to them.

This decision must be filed with the clerk of the Board of Education of Long Island City, and notice thereof must be given by him to the members of the Board, and to the appellants in the appeals above, numbered 2 and 3, with opportunity to examine the same.

Given under my hand and the seal of the Department of Public Instruction at Albany, this 5th day of June, 1872.

ABRAM B. WEAVER,
Superintendent of Public Instruction.

From the Great Industries of the United States.

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EDUCATION: ECONOMICAL AND EFFICIENT.

THE EDUCATION BUSINESS.—EIGHT MILLION CHILD-PATRONS.—GIGANTIC CAPITAL INVESTED.—TWENTY-SIX HUNDRED SCHOOL-BOOKS.—NO HISTORY OF EDUCATION.—PRACTICAL TENDENCY OF EDUCATION REFORM.—OBJECT-TEACHING TWO CENTURIES AGO.—A QUART OF BLACKBOARD.—OLD-FASHIONED SCHOOLS.—REBELLION AGAINST GRAMMAR.—THE REAL ROYAL ROAD TO KNOWLEDGE.—FIRST ORGANIZATION OF THE IMPROVED SCHOOL APPARATUS BUSINESS.—ORIGIN AND RISE OF THE HOUSE OF J. W. SCHERMERHORN AND CO.—EXTENT OF THEIR OPERATIONS.—CONTENTS OF THEIR MUSEUM.—MODERN APPARATUS.—MASTER TILESTON AND THE PEN-WIPE.—PUBLISHING DEPARTMENT.

IMPROVEMENTS in the methods and in the machinery of education and schools have a value in a mental and moral point of view which has been endlessly talked about, and is pretty well understood. But their importance, as a matter of every-day business, in dollars and cents, is not so often mentioned, and is less familiar. And yet the business part of education, even leaving the immortal soul for the moment out of the question, ranks, in point of money importance, in the same grade with the cotton business, the woollen business, the grain trade, or the shipping interest.

That this is so will quickly be perceived, if we only remember that about one-fifth of the whole number of souls in the United States are always occupied in attending schools or other educational institutions; that is, at present, not far from eight million pupils, besides about one hundred and sixty thousand teachers. The books alone used by this vast army at any one time have cost at the very least twenty millions of dollars; the seats, desks, and other apparatus, thirty millions of dollars—together, fifty millions of dollars. The investment of capital in school-houses and other buildings, in lands, college endowments, etc., is several times as much as this; one single item, viz., fifty million acres of public lands, given by Congress at one time for educational purposes, being alone equal in value to the items of books and furniture. To all these must be added, further, a capital whose interest would equal the annual total sum paid to teachers; a still further considerable item for libraries; another for reference-books and professional works owned by teachers; and the

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total amount of the business investment of the United States in education becomes absolutely gigantic.

Perhaps another fact will add to the distinctness of our picture. It is well known that as much as twenty thousand dollars has repeatedly been invested in preparing, printing, and distributing some single new school-book before the receipt of any returns from it, with the expectation that subsequent sales would reimburse the whole, with abundant profits. Very well: there are in the market to-day (besides books which have become obsolete) about twenty-six hundred different school-books. Of course the investment for "introducing" these has often been comparatively small; but if there are so many competitors for a patronage which it may cost so much to obtain, that must be an enormously lucrative patronage.

No competent history of education exists, in English; although German literature contains many works on the subject, and abundant materials for it are dispersed throughout English literature, particularly in the essay and biographical departments. But any one at all versed in the general subject will recognize the truth of the statement that, since the time of the "revival of classical learning" in Europe, which took place just after the capture of Constantinople by the Turks, and just before the Protestant Reformation, one line of progress more distinct than any other can be clearly traced along the whole history of modern education—namely, improvement in the *practical* character of education.

This practical tendency has always belonged to the prominent educational reformers, and has characterized all the improved educational systems, as compared with those that preceded them. We find Comenius, in the days of Oxenstiern and the Thirty Years' War, laying down with perfect distinctness the very doctrine which is to-day most prominent among the improvements now in progress, to wit, the Object Lesson system. He says, "Things and words should be studied together; *but things especially*, as being the object both of the understanding and of language." This same idea, indeed, was the basis of his famous *Orbis Pictus*, a collection of pictures of natural objects with explanations, in connection with which he intended that the objects themselves were to be used as far as possible. This work has been a favorite German school-book for two hundred years—a duration of popularity more than doubling that of Webster's Spelling-Book.

To pass at once to the affairs of the present day. The condition of the educational interest of the United States, so far as it is to be looked at on the business side, presents two especially striking

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features. These are—first, the rapidly-advancing practice of educating through the senses, and about things, instead of educating about words, and through the memory ; and as a means of accomplishing this, the increased use of improved apparatus of all kinds, from the school-house itself, with its symmetrical and elegant furniture and fittings, to models and machinery of all kinds, and even down to the minute details of crayons, erasers, rods, inkstands, and hat-pegs ; and second, the use of capital, machinery, and inventive ability for supplying these improved instrumentalities at once in great quantities and at cheap rates—that is, according to the spirit of modern civilization.

One question, to-day a perfectly reasonable one, but which at any past period in the history of schools would have been perfectly absurd, may serve to illustrate the changed character of the new order of things:—

“ What is the price of a quart of blackboard ? ”

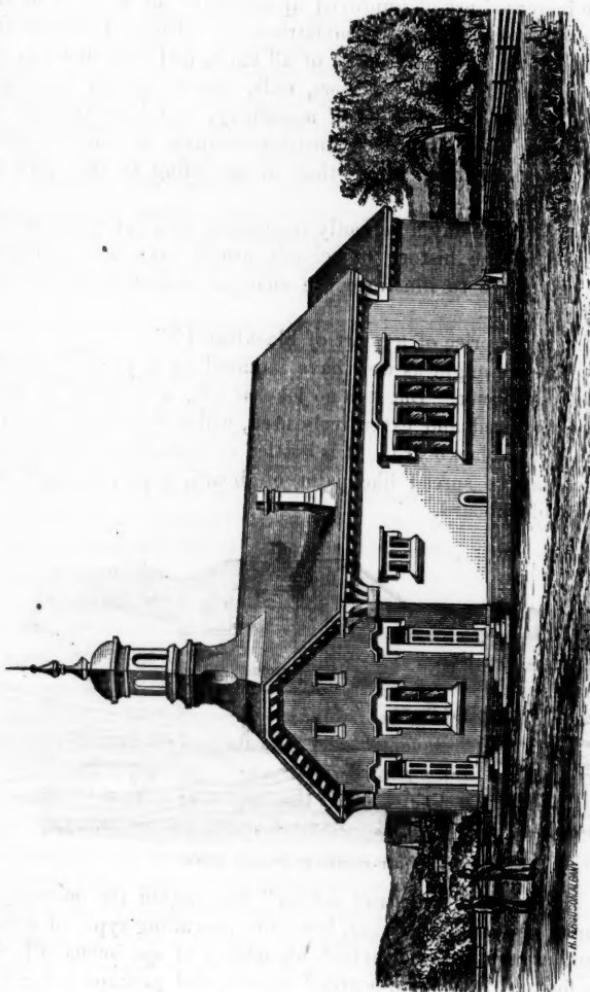
Heredofore we might as well have inquired for a yard of oil, or a pound of conscience. But it is no joke at all ; a material is regularly manufactured and extensively used, which is neither more nor less than liquid blackboard. It is bottled or canned for carriage and keeping ; may be spread like paint on board, paper, or wall, and becomes a blackboard.



THE OLD-FASHIONED SCHOOL-HOUSE.

The old-fashioned “district school” has, within the memory of very many persons now living, been the prevailing type of school-house and apparatus ; and, indeed, abundance of specimens of it may yet be found. It is a clapboarded shanty, and perhaps a log hut, its walls within fringed, so to speak, with a sloping board for a desk, while parallel to this are slabs for seats, upheld by straddling legs cut from green poles, with the bark still on them. Perhaps other

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THE MODERN COUNTRY SCHOOL-HOUSE.

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desks and seats, on the same principle, occupy part of the floor. Each pupil has a speller, a reader, an arithmetic, and possibly a geography and atlas; perhaps there is a blackboard, and very likely there is a rattan, a ferule, or even a rawhide within reach of the teacher's hand. No wall maps; no globe; no apparatus of any kind, unless a painted pail and a tin dipper may be called such, for illustrating hydraulics and hygienes at once. As for a school library or any real "apparatus," as well expect to find a grand piano growing in the woods. It has happened within the last twenty years that a rebellion broke out among the intelligent parents of a certain school district in the educationally famous State of Connecticut, because the teacher ventured—not to make the district pay for globes, or maps, or pictures, or anything else, but—to teach grammar!

However, the number of such abodes of darkness decreases. The present spirit of the schools is represented by a very different affair—by the first-class graded school, with its elegant architecture, home-like and healthful warmth and fresh air, neat and comfortable desks and seats, abundance of text-books, well-chosen library, varied assortment of maps, charts, globes, and primary and scientific apparatus of all kinds, in short, by an array of contrivances for shortening, clearing, and easing the way of the scholar, and for speeding his progress upon it, so numerous and so effective that the time-honored maxim, "There is no royal road to knowledge," is pretty much done away. There is one; it lies through the improved common school; the sovereign for whom it has been contrived is the Sovereign People.

Unquestionably the utmost point thus far reached, in this process of organizing and combining for the supply of mental training on business principles, is shown in the existence and operations of a central depot for exhibiting and distributing school material. Fifteen years ago no such depot existed. The boys and girls in the country could get their spelling-books, arithmetics, and slate pencils where their fathers bought their codfish and molasses, and their mothers their calico and thread—at the country store. In the cities there were publishers and booksellers, in case of a wholesale order for the like commodities. But it was not easy to obtain much more. Some of the simpler articles of school apparatus now in common use, were not unknown, but, in order to obtain them, the enterprising teacher or trustee must visit as many different places as there were articles named on his memorandum. Prices were high, the supply small, the shops or garrets where each article might be had were obscure,

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and dispersed throughout the city. Of course these articles were usually not supplied, and the efficiency and improvement of the schools were seriously impeded accordingly. A few feeble attempts had been made to establish the manufacture of some of the most important apparatus, but without enough of either capital, or energy, or knowledge of what was required, to attain success.

In 1858, a schoolmaster, now principal of the house of J. W. Schermerhorn & Co., of New York, having learned in his professional experience the wants of the schools, and having studied the needs of the times, conceived the idea of a general depot for school material of all kinds. In this one centre, according to his conception, should be gathered and displayed specimens of furniture, apparatus, stationery, books,—everything useful in the school-room. It was to be an exhaustive museum of educational merchandise, where all things in that line could be seen by all men—and women; in fact, a perpetual world's fair of school material.

In 1859, a connection was made with the American School Institute, and the proposed business was actually set on foot in Philadelphia. In 1861, it was found expedient to remove the base of operations to New York. It quickly became evident that, in order to adequately develop the enterprise, a department for the manufacture of school merchandise must be added. Mr. George M. Kendall, who had been identified with the enterprise from the first, assented to the suggestion; in 1865, Mr. George, Munger, an inventor of celebrity, whose articles had been extensively ordered through the house, joined it as a partner, and manufacturing was soon afterward begun at Guilford, Conn. Mr. W. P. Hammond joined his interests with those of the gentlemen already named, and not long afterward three enterprising capitalists—Messrs. Nelson Crawford, Thomas Bell, and Samuel P. Bell—invested funds in the house.

No gigantic fortunes have yet been made in the operations of this modern and very original concern. The nature of the trade is such that the margin of profit cannot be heavy; and in the early period of such enterprises there is always a great and apparently wasteful outlay of money, thought, and labor, in creating and improving. Our country is yet new. Vast as the existing school mercantile interest already is, we have, in fact, barely entered the real school-organizing period. The business of the firm hitherto has partaken largely of a missionary character; has drawn heavily upon the faith of its managers and supporters. But the original projector of the house, as well as his partners in it, have not at all lost confidence in the importance of the school interest, and in the magnitude of the part

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which they must play in working out American destiny; nor, accordingly, have they any fear for the ultimate success of their undertaking in a business point of view. It would be an unprecedented violation of the laws of business should such industry, perseverance, pluck, and fertility of contrivance remain permanently unrewarded.

Indeed, the business has already fully verified the predictions of its founder as to the main principles involved. It was believed that there was a national demand for such a central depot as this in the business metropolis of the nation; and the operations of the house have become national. Its premises are a regular resort for persons interested in education from all parts of the country, and its agencies are open in most of the principal cities of the Union. Its trade extends from Canada to the Mexican border, and from Maine to California. Orders from England are frequent; trade with South America is large; Honolulu, and other localities of the islands of the sea, make frequent demands upon the facilities of the house; it has furnished the public schools of Melbourne, in Australia; and distant missionary stations, as they establish schools, are habitually resorting here for supplies.

No more vivid representation of the advance of educational improvements for the last quarter of a century could be made than is supplied by a contrast between the catalogue which Messrs. J. W. Schermerhorn & Co. publish of the school material kept on hand by them, and a similar one of twenty-five years back. On one hand, a handsomely printed volume of a hundred and fifty pages, containing two hundred and forty-four elegantly executed wood-cuts, to begin with; and specifying the names and prices of several hundred books, describing dozens of different courses of study; cataloguing not merely the articles represented in the illustrations, numerous as they are, but twenty times as many, with prices at retail and wholesale, suggestions for use, etc., etc., to the extent of being substantially a practical pictorial educational encyclopædia. So much for the list of to-day. As for that of twenty-five years back—there is none.



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It is out of the question to give within the limits of a paper like the present even an approach to a full summary of the materials thus catalogued and represented. But a list of the names of fifty of the items, picked out in turning over the pages, and which we throw into an alphabetical order, will surprise any one not thoroughly familiar with the subject, so varied are the articles, and so wide the range of knowledge illustrated, processes of study assisted, and devices contrived:—

Abacus, alphabet blocks, arithmetical solids, barometer, book carrier, color cube, crayon holder, croquet set, cube root blocks, dissected cone, dividers (for blackboard use), drawing paper, dumb bells, eraser, geometrical forms and solids, globe (slated), gonigraph, hat rack, hydrometer, Indian clubs, kindergarten blocks, letter clip, liquid blackboard, lunch box, magic lantern, magnet, mariner's compass, mathematical instruments, microscope, organ, orrery, pencil file, planisphere, prism, rain gauge, Rogers' school groups, school bags, season machine, shoe scraper, slate rest, song roll, spelling stick, stream of time, sweeper, tape measure, tellurian, thermometer, wall slate, wands (for exercise), waste basket.

This list, it will be observed, omits such obvious items as chair, desk, ink, paper, etc. It is not unlikely that some of our readers

may have to stop and think before they can tell what some of these things are for. What is a gonigraph? a pencil file? a season machine? a spelling stick? "Gony" is, or used to be, a slang term for "a silly fellow;" does a gonigraph describe gones? Is the file to sharpen the pencil or to keep it? Can your season machine turn out weather to order? Will a stick spell? Even the man of to-day might almost be imagined to put these questions. But please to hear about Master Tileston and the pen-wiper, and then imagine what that excellent old gentleman would have said to



ROGERS' GROUP—SCHOOL EXAMINATION.

Schermerhorn & Co.'s catalogue of school material. Master Tileston, who died not far from 1824, at the age of eighty-five or

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more, was writing-master in one of the Boston schools for over half a century. Sundry curious anecdotes are told about the good old gentleman; but that which is to the present point, and which was recorded by one of his pupils, is as follows: This pupil had become apprentice in a book-store, when his old instructor entered the store: "Out of respect for the venerable man, the pupil wiped his pen on a rag that hung by the desk for that purpose, and suspended his work. The old gentleman approached the desk, and carefully raising the rag with his thumb and forefinger, said, 'What is this for?' 'To wipe the pen on, sir, when we stop writing,' said the respectful pupil. 'Uh! it may be well enough,' said he, 'but Master Proctor had no such thing!' Master Tileston always *wiped out his pen with his little finger, and then cleaned his finger on the white hairs just under his wig.* His model, Master Proctor, had been dead half a century, perhaps, but he still lived in the routine that he had established."

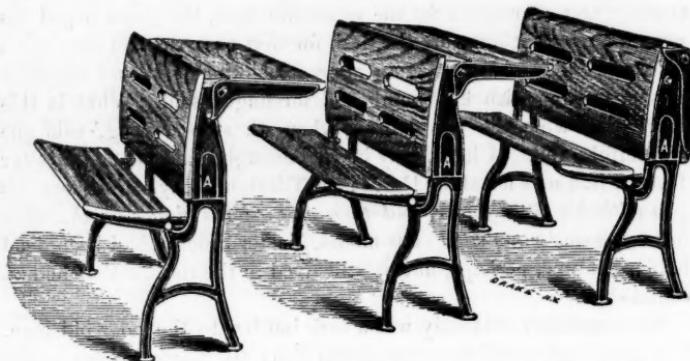
The pen-wiper evidently was a sore burden to the poor old man. The gonigraph would have staggered him; the magic lantern would have been little better than sacrilege in his eyes; and the Indian clubs would have beaten his very life out. And yet this comprehensive and seemingly heterogeneous variety of school material corresponds to a very wise saying of a very judicious old gentleman of far more ancient date than Master Tileston—that famous and practical Greek, the Spartan King Agesilaus—who, on being asked, "What ought children to learn at school?" replied, "Whatever they will need to do as men."

Besides the extensive arsenal—so to speak—of educational ordinance and munitions of war wherewith to teach the young idea how to shoot, the house keeps on hand a full specimen assortment of all the best school-books, and furnishes them in the same manner as apparatus, maps, or furniture. Moreover, it publishes, from time to time, books of its own, the last being Professor Johonnot's "School-Houses," with designs by Hewes—an elaborate work, bringing its subject down to the very latest dates, and with a great number of drawings and plans for school-houses of all sorts, materials, and sizes. And lastly, it issues THE AMERICAN EDUCATIONAL MONTHLY, a lively periodical, which serves as a record of contemporary educational history, doctrine, and practice, and as a common organ of communication among those interested in schools and other institutions and instrumentalities of learning.

Such an institution as has thus been described could not exist except amidst a great number of highly improved and improving

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schools. It at once lives by them, and helps them live; and while it is justly entitled to large pecuniary success, it is at the same time incomparably most significant as an index and engine of mental and moral improvement.



THE ASSEMBLY-ROOM DESKS AND SETTEES, WITH ALLEN'S OPERA FOLDING SEATS.

OUR IMPROVED

Modern School Furniture.

THE very decided advantages of our Furniture have induced a popular appreciation and demand hitherto unknown in the history of similar enterprises. Its national reputation and general use in the United States, as well as its large demand from foreign countries, have sprung from the following peculiar merits :

1. All the seats and backs are curved to precisely fit the persons of pupils — hence they are most comfortable. Correct Physiological Principles have been carefully observed in the construction of our Furniture.
2. All seats are folding — permitting pupils to take and leave their places without difficulty and disturbance; enabling the teacher to call up every pupil promptly at a given signal; giving capacity to the School-room for light Gymnastics; admitting free passages across the room, and giving opportunity to clean the floors.
3. All Desks and Settees are readily taken apart, and shipped flat—hence transportation is very cheap.
4. The patented manner of dove-tailing the parts makes warping, shrinking, and swelling impossible — hence they are enduring.
5. Our Furniture is superior in appearance, and finished in workmanship.
6. It is cheaper even than the inferior styles.

In fact, we were the first to establish style in furnishing Schools. Some other manufacturers, to save their business, have felt compelled to try to imitate us, as far as our patents, and their own taste and facilities will permit.

REFERENCES.

For purposes of reference and examination, we give a list of some of the Schools which we have recently supplied with School Furniture.

It is a significant fact that our Furniture is so satisfactory to our customers that we dare publish their names.

NEW YORK.

Albany	Miss Ryan's School.	Cold Spring	School District No. 10.
"	Cathedral "	College Point	School District No. 7.
"	Miss Hewitt's "	"	Miss Walther's School.
"	Board of Education.	Copake Iron Works	Public School.
Amenia	Amenia Seminary.	Croton Falls	" "
Ashford	Public School.	Croton Landing	" "
Astoria	" " No. 3.	Centreport	" "
Athens	" " No. 6.	Dikeman's	Miss Gay's School.
"	J. J. Vosburg, Trustee.	Dobbs Ferry	Miss Dana's "
Auburn	High School.	"	Miss Hinton's "
Bay Shore	Public School.	East New York	Public School.
"	Chas. M. Howell, Trustee.	"	Rev. Mr. Creighton's Sc'l.
Bedford Station	Public School.	East Irvington	Mrs. Ropes' School.
Benton	" "	East Chester	School District No. 2.
Blue Point	H. Bishop, Trustee.	"	" " No. 3.
Brewster's Station	Public School.	Elmira	High School.
"	Public Hall.	Edgewater	Public "
"	Public School No. 13.	Far Rockaway	" "
"	F. E. Foster, Trustee.	Fishkill	District No. 12.
Bronxville	School District No. 3.	Fishkill Landing	Miss Wagner's School.
Brooklyn	Adelphi Academy.	Flatbush	Erasmus Hall Academy.
"	Edward Brown's School.	"	Public School No. 1.
"	F. D. Longchamp's "	"	Dr. J. L. Zabriskie.
"	H. Aisgen's "	Flushing	Public School No. 4.
"	Irving Seminary.	"	" " No. 7.
"	Miss Dudley's Seminary.	"	St. Joseph's Academy.
"	Mr. Bigelow's School.	"	Mrs. S. E. Lincoln.
"	Mr. Mordaugh's "	Fordham	Public School No. 2.
"	Mrs. Adams' "	"	" " No. 4.
"	Mrs. Burnett's "	Fort Washington	N. A. Lepinasse's School.
"	Mrs. Hilton's "	Friendship	A. J. Wellman.
"	Mrs. Marvin's "	Freeport	M. Burr.
"	Packer Institute.	Garrison's Landing	Public School.
"	Prof. Chenevierre's School.	Glen's Falls	Glen's Falls Academy.
"	Prof. Everett's School.	Green Island	Public School.
"	Prof. Giraud's Seminary.	Great Neck	" "
"	Sisters of the Visitation.	Harlem	Harlem Academy.
"	Rev. Dr. Lewin's School.	"	Miss Jackson's School.
"	Mrs. Harvey's "	Havana	People's College.
"	Mr. Dunn's "	Haverstraw	School District No. 1.
Catskill	Free School.	"	" " No. 3.
"	Public "	"	Mrs. Batchelder's School.
"	Rectory "	Herkimer	Public School.
Castleton	School District No. 2.	Hempstead	School District No. 15.
"	Mrs. Hunt's School.	Highland Falls	Mr. Carswell's School.
Chester	Public School.	Highland Mills	Public School.
Canandaigua	Ontario Orphan Asylum.	Hudson	Hudson Academy.
Chatham Village	Marks B. Stewart.	"	Board of Education.
City Island	Public School.	"	J. E. Gillette.
Clarkstown	" "	Huntington	Public School.
Clifton	St. Mary's Academy.	"	Union "
Cohoes	Board of Education.	Hoosick Falls	School District No. 14.

REFERENCES.

Islip	Public School.	New York City	Mr. Emmerich's School.
Ithaca	Cornell University.	"	Mr. Farrand's School.
"	{ University Preparatory School.	"	Mr. Colton's "
Jamaica	School District No. 6.	"	Mr. Prevost's "
"	Public School.	"	Mrs. Ritter's "
Katonah	Alpheus Green.	"	Mr. Van Rhyn's School.
Kensico	J. W. Booth.	"	New York Orphan Asyl'm.
Livingston	Rev. T. S. Duslinberre.	"	{ Orphanage of Church of Holy Trinity.
Little Falls	School District No. 1.	"	St. Columbus School.
"	William A. Brown.	"	St. Matthew's Academy.
Long Island City	First Ward Public School.	"	St. Catherine's Convent.
Mamaroneck	Public School.	"	St. Jerome's Ch. School.
Manhasset	" "	"	Immaculate Conception School.
Malden	" "	"	Holy Communion Par- ish Schools.
Margaretville	Swart & Winter.	"	Rev. J. P. Smith.
Matteawan	Public School.	North New York	{ Rev. Father Hughes' Schools.
McGrawville	" "	North Salem	Public School.
Merrick	School District No. 7.	Nyack	Rev. H. Ten Broeck.
Middletown	" " No. 17.	"	Miss Anna Burgh.
"	Public School.	Otisville	John Mullock.
Milton	Mrs. Myers' School.	Oxford Depot	Public School.
Monroe	Public School.	Oyster Bay	School District No. 1.
"	W. K. Smith.	"	Rev. C. S. Wightman.
Morrisania	German American School.	Patterson	Public School.
"	Public School No. 1.	Peekskill	School District No. 6.
"	" " No. 3.	"	" " No. 8.
"	" " No. 4.	Port Jervis	Public School.
"	" " No. 5.	"	Dr. Wilbur's School.
Mount Hope	School District No. 5.	"	Union School No. 1.
Mount Lebanon	Public School.	Port Chester	Dr. J. F. Bowron.
Mount Vernon	Board of Education.	Fort Leyden	Public School.
Montgomery	School District No. 7.	Poughkeepsie	School District No. 5.
Newburgh	Home for the Friendless.	"	Mr. Brown's School.
"	Board of Education.	"	Riverview Military Acad.
"	School District No. 1.	"	White Bros. & Co.
New Lots	" " No. 3.	Prattsburg	Public School.
New Paltz	New Paltz Academy.	Ramapo	School District No. 2.
New Rochelle	Locust Ave. Seminary.	Red Rock	Public School.
"	Miss Adams's School.	Rondout	" "
"	Public School.	"	Union Free School.
New Utrecht	" "	Rhinecliff	Rev. Thos. S. Savage.
New York City	Bowery Industrial School.	Roslyn	Public School.
"	Children's Aid Society.	Sand Lake	School District No. 4.
"	Child's Nursery.	Sandy Hill	Union School.
"	Colored School No. 3.	Saratoga	Mrs. Walworth's School.
"	German American School.	Saratoga Springs	Public School.
"	Dr. Somer's School.	Saugerties	School District No. 21.
"	French-English Institute.	Scarsdale	Public School.
"	Grammar School No. 12.	Schodack	School District No. 3.
"	" " No. 39.	Schuylerville	" " No. 5.
"	" " No. 51.	"	Dr. Payn's School.
"	" " No. 58.	Schenectady	Duncan McDongal.
"	{ Lenke & Watts' Orphan House.	Schagticoke	Julius E. Butts.
"	Madame Mears' School.	"	District No. 16.
"	Madame Heritan's "	Sing Sing	S. R. Stone.
"	Miss Arbuckle's "	"	J. D. Post's School.
"	Miss Goodwin's "	South Glen's Falls	H. W. Barker.
"	Miss Jaudon's "	Southhold	J. B. Terry.
"	Miss Warren's "	Stony Point	School District No. 1.
"	Miss Youman's "	Spring Valley	Spring Valley Academy.
"	Miles Charbonniers' Sc'l.	"	Erastus Johnson.
"	Miss Ellis's School.		
"	Mrs. Storrs' "		

REFERENCES.

Stephentown.....	School District No. 1.	
Spuyten Duyvel.....	School District No. 3.	
St. Johnsville.....	School District No. 2, Danube.	
Syracuse.....	Mrs. Dickenson's Seminary.	
Tarrytown.....	Mr. Guilbert's School.	
".....	Mr. Jackson's "	
".....	Mr. Wilkinson's "	
Tremont.....	Public School.	
Troy.....	Board of Education.	
".....	First Ward School.	
".....	Fourth "	
".....	Troy Academy.	
".....	Christian Bros. Academy.	
".....	St. Peter's School.	
".....	Miss Purdy's "	
".....	Campbell & Vaughn.	
".....	George Harrison.	
Tuckahoe.....	Public School.	
Tully.....	School District No. 2.	
Turner's.....	T. R. Earl.	
Upper Piermont.....	Mr. Cowles' School.	
".....	Mr. Bauer's "	
Valley Falls.....	Public School.	
Watertown.....	Henry J. Hopkins.	
Watervliet.....	Public School.	
Warwick.....	School District No. 8.	
".....	Lazear & Demarest.	
Weedport.....	Union School.	
Westchester.....	Public School No. 1.	
".....	" " No. 2.	
West Farms.....	Miss Cuthell's School.	
".....	Public School No. 2.	
".....	" " No. 4.	
West Town.....	Public School.	
Williamsburgh.....	H. C. Blackmar.	
Winsbridge.....	School District No. 6.	
Whitehall.....	Public School.	
White Plains.....	" "	
	Mrs. Stelwagon's School.	
Whitestone.....	Miss Curley's "	
Williamsbridge.....	Public School.	
Woodhaven.....	School District No. 7.	
Yonkers.....	Public School.	
".....	Mrs. David's School.	
".....	Mr. Hooper's "	
".....	Wm. Allen Butler.	
".....	Turner & Co.	
Yorktown.....	School District No. 6.	

NEW ENGLAND.

Amherst, N. H.....	James C. Boutelle.	
Andover, Mass.....	Public School.	
".....	E. F. Holt.	
Ansonia, Conn.....	High School.	
".....	Public School.	
Ashland, Mass.....	Rev. M. M. Cutler.	
Assabet.....	John Hillis.	
Barrington Centre, R. I.	Public School.	
Bennington, Vt.....	Bennington Graded Sch'l.	
Boston, Mass.....	Boston Theological Sem'y.	
".....	Miss Welchman's School.	
Branchville, Conn.....	Public School.	
Bridgewater, "	H. H. DuBols.	
Bridgeport, "	Public School.	
".....	Waterville School Dist.	
".....	Tollsome Hill "	
".....	Union "	
".....	Island Brook "	
".....	Misses Ward and Hinckley's School.	
Brighton, Mass.....	P. C. Winship.	
".....	Joseph Bennett.	
Chapinville, Conn.....	Public School.	
Cheshire.....	Episcopal Academy.	
Clinton, "	Public School.	
Cohasset, Mass.....	" "	
Concord, "	" "	
Danbury, Conn.....	Mrs. White's School.	
Danielsonville, Conn.....	Public School.	
Darien, "	Darien Seminary.	
".....	Miss Rice's School.	
Dayville,	Public School.	
Eagleville,	" "	
East Braintree, Mass....	" "	
".....	A. Mason.	
East Bridgewater, "	Public School.	
".....	E. W. Nutter.	
East Falmouth, Mass.....	J. C. Robinson.	
East Taunton, "	Public School	
".....	N. W. Shaw.	
East Haven, Conn.....	Public School.	
Erving, Mass.....	N. J. Benjamin.	
Fairhaven "	Public School.	
Falls Village, Conn.....	Mr. Spurr.	
Fair Haven, "	Public School.	
".....	H. B. Brown.	
".....	J. P. Merrow.	
Framingham, Mass.....	Public School.	
".....	G. B. Brown.	
Franklin, "	S. W. Squire.	
Glendale, "	Public School.	
Grandeville, "	" "	
Greenfield, "	David Mowry.	
".....	J. F. Moors.	
".....	C. C. Conant.	
Greenville, Conn.....	Public School.	
Great Barrington, Mass.....	Grammar "	
".....	High "	
".....	Charles Watson.	
Greenwich, Conn.....	Meeting House Sch'l Dist.	
".....	Byrum "	
".....	Round Hill "	
".....	Stanwich Upper "	
Groveland, Mass.....	Public School.	
Hartford, Conn.....	Mr. Thompson's School.	
".....	Meadow "	
".....	Miss Hyde's "	
Hathfield, Mass.....	Public	"
Holyoke, "	Rev. Father P. J. Harkins.	
Hinsdale, "	E. H. Goodrich, Jr.	
Holliston, "	N. J. Parmenter.	
".....	E. T. Whiting.	

REFERENCES.

Hull, Mass.	D. W. Dill.	Orange, Mass.	H. N. Moore.
Jamaica Plains, Mass.	Prof. D'Eghent.	Porn, Mass.	Public School.
Kent, Conn.	Kent Cottage Seminary.	" "	G. L. Thomson.
Lakeville, Conn.	Public School.	Pittsfield,	Miss Salisbury's School.
Lancaster, Mass.	Arby Esty.	Plantsville, Conn.	Public School.
Lee,	Public School.	" "	H. D. Smith.
" "	John Branning.	Plymouth,	E. Warner.
Lisbon, Conn.	Public School.	Portland, Me.	A. L. Dresser.
Littleton, Mass.	" "	Poultnay, Vt.	Public School.
" "	G. W. Fuller.	" "	Rev. E. H. Randall.
" "	Gardiner Prouty.	Putnam, Conn.	Public School.
Ludlow, Vt.	J. R. Spofford.	Bethel, N. H.	R. F. Hanscam.
Madison, Conn.	Lee's Academy.	Rutland, Vt.	Rutland Graded School.
" "	North West School Dist.	" "	Ben. K. Chase & Co.
" "	Public School.	Saugus Centre, Mass.	E. P. Robinson.
Manchester, Mass.	G. A. Priest.	Saybrook, Conn.	Centre School District.
Mechanicsville, Conn.	Public School.	" "	Seabury Institute.
Middleboro, Mass.	E. W. Drake.	Sharon,	Sharon Institute.
Middlebury, Vt.	Middlebury College.	" "	C. H. Shears.
Middlefield, Mass.	Public School.	Shelburne, Mass.	Fliny Fisk.
" "	G. W. Cottrell.	South Hanson, Mass.	W. H. H. Bryant.
Milford,	Public School.	Southport, Conn.	Miss Smith's School.
Millbury,	P. Simpson.	South Manchester, Conn.	Public School.
Miller's Falls,	J. S. Cousins.	" "	Cheney Brothers.
Montague,	Public School.	South Norwalk,	Miss Hogan's School.
Natick,	" "	Spencer, Mass.	Public School.
New Britain, Conn.	School District No. 1.	Stockbridge,	Mr. Reid's School.
" "	Centre School District.	" "	M. Warner, Trustee.
" "	Shipman "	Stoneham,	W. B. Stevens.
" "	Stanley Quarter Sch'l Dis.	Stamford, Conn.	Miss Czarmonska's Sch'L
" "	Public School.	" "	Public School.
New Canaan,	" "	Stonington,	Calvary Church School.
" "	Stephen Hoyt & Sons.	St. Johnsbury, Vt.	Horace Fairbanks.
" "	Francis Brown.	Thomaston, Conn.	Plymouth Woolen Co.
New Haven,	High School.	Unionville,	Public School.
New London,	Mr. Crump's School.	Vassalboro', Me.	P. M. Jones.
" "	N. A. Lyon.	Wakefield, Mass.	Town Hall.
New Bedford, Mass.	J. C. Robinson.	Ware,	Public School.
Newport, R. I.	Wm. P. Sheffield.	Waterbury, Conn.	A. S. Chase.
Newtown, Conn.	Newtown Academy Ass'n	" "	Baptist Church.
Northboro', Mass.	Public School.	" "	High School.
" "	R. W. Newton.	" "	Board of Education.
North Brantford, Conn.	Public School.	Watertown,	Episcopal School.
North Bridgewater, Mass.	Darius Howard.	Webster, Mass.	Public School.
Northford, Conn.	Public School.	" "	F. D. Brown.
North Hadley, Mass.	" "	Westboro', "	Dr. Hero's School.
" "	L. N. Granger.	West Brookfield, Mass.	Public School.
North Middleboro', "	H. L. Edwards.	" "	B. P. Aiken.
Northwick, Conn.	Centre School District.	West Cheshire, Conn.	Amos Moss.
" "	North Centre School Dist.	West Cornwall,	Public School No. 1.
" "	Over River School Dist.	" "	No. 2.
" "	North West "	Westford, Mass.	" "
" "	Broad River "	West Meriden, Conn.	State Reform School.
" "	Miss Beecher's School.	West Needham, Mass.	Mr. Clarke's School.
" "	Mr. Selleck's "	West Stockbridge,	S. Spencer, Jr.
" "	Edward Merrill.	West Tisbury,	Public School.
" "	Charles Reynolds.	" "	M. C. Mitchell.
Norwich,	Public School.	West Thompson, Conn.	Walter Bates.
" "	Central School District.	Wethersfield,	R. A. Robbins.
" "	Preston "	Wilton,	Public School.
" "	School Street Public Sch'l	" "	S. B. Fancher.
" "	Mrs. Piatt's School.	Winnepaug,	Public School.
" "	N. S. Gilbert.	Woonsocket, R. I.	A. Sherman.
Orange, Mass.	Public School.	Yalesville, Conn.	School District No. 3.
" "	C. M. Barber.	Yantic,	E. W. Williams.

REFERENCES.

NEW JERSEY AND PENNSYLVANIA.

Ashbury,	N.J.	Mr. Smith's School.	Freeman's Depot, N.J.	... Public School.
"	"	... Public School.	German Valley,	" ... " "
Barnegat,	"	" " "	Hamburg,	" ... School District No. 1.
Bayonne,	"	1st Ward "	Hoboken,	" ... Misses French's School.
"	"	2d "	"	" ... Mrs. De Valernes' "
"	"	3d "	"	" ... Mrs. Dormitzer's "
"	"	Board of Education.	Hoehokus,	" ... Public School.
Belvidere,	"	Public School.	"	" ... G. J. B. Keizer.
Bergen Point,	"	School No. 1.	Holmdel,	" ... School District No. 1.
Bergen,	"	Bergen Institute.	Honesdale,	Penn. ... Honesdale Graded School.
Bloomsburg, Penn.	"	State Normal School.	"	... Select School.
"	"	Mr. Craver's School.	"	" ... E. F. Torrey.
Boonton, N.J.	"	School District No. 7.	"	" ... W. W. Weston.
"	"	Miss Crane's School.	Hudson City, N.J.	... S. V. Bettings.
Branchport Stat'n	"	Public School.	Hunt's Mills,	" ... School District No. 5.
Bricksburg,	"	School District No. 7.	Irvington,	" ... Public School.
Brick Township,	"	" " " 3.	Jamesburg,	" ... State Reform School.
"	"	" " " 5.	Jersey City,	" ... Mrs. Paxton's School.
Caldwell,	"	Public School.	"	" ... Miss Adams' School.
"	"	Jonathan Prevost.	"	" ... Public School for Col-
Cedar Grove,	"	Public School.	"	ored children.
Chaseford	"	School District No. 1.	"	" ... Public School, No. 1.
Clifton,	"	Public School.	"	" ... " " 3.
"	"	S. Newell.	"	" ... " " 12.
Clinton,	"	Public School.	"	" ... " " 4th Ward.
"	"	N. W. Voorhees.	"	" ... Board of Education.
Coytesville,	"	Linwood Institute.	Keyston,	" ... Miss Brown's School.
Dayton,	"	J. V. Hubbard.	"	" ... Public School.
Deal,	"	Public School.	"	" ... Gordon and Herbert.
Denville,	"	" "	Kingston, Penn.	... Wyoming Seminary.
"	"	Geo. E. Righter.	Knowlton, N.J.	... Public School.
Deer Park,	"	School District No. 8.	Lafayette,	" ... " "
Dover,	"	Public School.	Lebanon,	" ... " "
"	"	School District No. 8.	Lock Haven, Penn.	... Miss Parson's School.
"	"	Mine Hill District No. 2.	Long Branch, N.J.	... School District No. 1.
Easton, Penn.	"	Miss McCallister's School.	"	" ... " " 6.
East Orange, N.J.	"	Miss Grimes' School.	Madison,	" ... Miss Davy's School.
East Passaic,	"	School District No. 26.	"	" ... Public School.
Eatonont,	"	" " " 4.	Manalapan,	" ... " "
Edinboro', Penn.	"	State Normal School.	Manchester,	" ... " "
Elizabeth, N.J.	"	School District No. 1.	Marlboro',	" ... " "
"	"	Elizabeth Orphan Asylum	Meadville, Penn.	... Mr. Tingley's School.
"	"	Elizabeth Select School.	Merchantville, N.J.	... Public School.
"	"	Public School.	Middlebush,	" ... J. Newton Voorhees.
Elizabethport,	"	D. J. Meeker.	Milburn,	" ... St. Stephen's School.
Englewood,	"	Englewood Free School.	Millstone,	" ... Public School, No. 7.
"	"	Public School.	"	" ... Gravel Hill School.
Englishtown,	"	" "	"	" ... A. Olcutt.
"	"	Rev. J. L. Kehoo.	Montclair,	" ... Montclair High School.
Erie, Penn.	"	Board of Education.	"	" ... Geo. H. Francis.
Fair Haven, N.J.	"	Mrs. Harwood's School.	Morristown,	" ... Public School.
Farmingdale,	"	Public School.	Mountain View,	" ... School District, No. 13.
"	"	A. H. Patterson.	Neshanic,	" ... Neshanic Institute.
Flemington,	"	Rev. G. S. Mott's School.	Newark,	" ... 1st Ward Public School.
"	"	Rev. G. S. Woodhull's "	"	" ... 2d " " "
Forked River,	"	Public School.	"	" ... 3d " " "
Fort Lee,	"	" "	"	" ... 4th " " "
"	"	Father Smith.	"	" ... 5th " " "
Franklin Furnace	"	School District, No. 12.	"	" ... 6th " " "
Freehold,	"	Freehold Institute.	"	" ... 8th " " "
"	"	Public School.	"	" ... 10th " " "

REFERENCES.

Newark,	N.J. 11th Ward Public School.	Plainfield, N.J. { Plainfield College for Young Ladies.
"	" 12th " " "	" Public School, No. 1.
"	" Mr. Shier's School.	" { Young Men's Republican Club.
"	" Miss Chase's "	Plainsville, Penn. Public School.
"	" Mrs. Shafer's School.	Port Jervis, N.J. School District No. 1.
"	" Miss Hulse's "	Bahway, " Parochial School.
"	" Mrs. Leland's "	" Rahway Seminary.
"	" Mr. Masse's "	Red Bank, " Public School.
"	" High School.	" Rev. A. Perkins.
"	" Newark School Asso'n.	Reed's Station, Penn. Rev. J. T. Wampole.
"	" Rev. P. W. M. Walter.	Rocky Hill, N.J. Miss Pruyin's School.
New Branch,	" Public School.	Rutherford Park, " Presbyterian Chapel.
New Brunswick,	" Board of Education.	" School District No. 2.
"	" Rev. Father M.C. Duggan.	" T. M. Dickey.
"	" Theological Seminary.	" S. Winslow.
"	" Rutgers College.	Schooley's Mount'n, N.J. Seminary.
"	" Rutgers College Gram-	Sorority, Penn. Public School.
"	" mar School.	Secaucus, N.J. " "
"	" J. C. Edmonds.	Somerville, " " "
"	" Forman Martin.	" Presbyterian Church.
"	" Sixth Ward Public Sch'l.	" Mr. Cornell's School.
New Market,	" School District No. 4.	" Wagner, Potter & Lyman.
Orange,	" Board of Education.	" W. P. Flowers.
"	" Dr. Lowell Mason.	Southold, " Public School.
"	" German-English School.	South River, " " "
"	" Miss Grimes' "	South Orange, " Montrose Classical Ins.
"	" Miss Robinson's "	South New Durham, N.J. School District No. 3.
"	" Misses Earl and Munn's School.	Spotswood, N.J. Mr. Willis' School.
"	" Rev. T. Atkinson.	Spring Valley, " Spring Valley Chapel.
"	" W. A. Gellathy.	Stanhope, " School District No. 32.
Passaic,	" Miss Sinclair's School.	Stockholm, " " " 9.
Paterson,	" Miss Jones' "	Summit, " St. John's School.
"	" Mr. Harwood's School.	Tenafly, " Mrs. Veysay's School.
"	" Mr. Stevens' "	Towanda, Penn. { Susquehanna Collegiate Institute.
"	" Paterson Orphan Asylum.	Tunkhannock, " Miss Tuttle's School.
"	" Paterson Seminary.	West Chester, " Mr. Wyers' "
"	" Mrs. Renardson's School.	West Hoboken, N.J. Public School.
"	" H. Waters.	Westfield, " School District No. 11.
Perth Amboy,	" Public School.	West Orange, " " " " 4.
"	" Raritan Bay Seminary.	Washington, " " " " 2.
Phillipsburg, Penn.	Steiner and Kelly.	Wilkesbarre, Penn. Plains District.
Piscataway, N.J. Public School.	" Public School.
Pittston, Penn. Board of Education.	Woodside, N.J. " "
"	" A. Tompkins.	
Plainfield,	N.J. Miss Annian's School.	

SOUTHERN AND WESTERN STATES.

Amelia Court House, Va.	Rev. W. B. Gilmour.	Brownsville, Tex. Brownsville Academy.
Annapolis, Md.	U. S. Naval Academy.	Canal Dover, O. Board of Education.
Atlanta, Ga.	Phillips & Crew.	Charleston, S.C. Charleston Female Sem'y.
Augusta,	Mrs. Bounethean's School	" Rev. A. M. Folchi.
"	Rev. J. T. Robert.	Cleveland, Tenn. J. E. Rah.
"	Miss Sedgwick's School.	Charlotte, N.C. Mr. Burwell's School.
Austin, Tex.	Wm. Smythe.	Columbus, Ga. Public School.
Baton Rouge, La.	Louisiana State University.	" W. L. Salisbury.
Baltimore, Md.	Board of Education.	Columbia, S.C. Rev. T. S. Dodge.
"	Rev. J. Albert Harrold.	Due West, " Female College.
Bellevue, Va.	J. P. Holcombe.	Edgewood, Md. Rev. John McKelway.
Bethelourt Springs, Va.	Hollins Institute.	Enon, Ala. Banks, Caldwell & Co.
Bristol, Tenn.	Female Institute.	Faison's Depot, N.C. Dr. H. W. Faison.

REFERENCES.

Fernandina, Fla.	Public School.	
" "	Bishop Young's Seminary	
Gadsden, Ala.	Dr. Heath's School.	
Govanstown, Md.	Dr. Merrillat's "	
Georgetown, D. C.	Mrs. Bibbs' "	
Hampton, Va.	{ Normal and Agricultural Institute.	
Harper's Ferry, W. Va.	Mr. Brackett's School.	
Holly Springs, Miss.	Mr. Pettis' "	
Independence, Tex.	Baylor University.	
" "	Rev. H. Clarke.	
" "	Wm. Carey Crane.	
Ironton, Mo.	Rev. Julius Spencer.	
Louisville, Ky.	J. P. Morton & Co.	
Lynchburg, Va.	C. L. C. Minor.	
Macon, Ga.	Appleton Home.	
Milledgeville, Ga.	W. D. Seymour.	
Mobile, Ala.	Mrs. Abbott's School.	
Montgomery, Ala.	Joel White.	
" "	W. S. Barton.	
Nebraska City, Nebr.	Board of Education.	
New Orleans, La.	Leland University.	
" "	H. Chamberlin.	
" "	Stevens & Seymour.	
" "	R. J. Harp.	
Norfolk, Va.	Catholic Orphan Asylum.	
Ogden, Utah.	Rev. J. D. Gillogly.	
Parkersburg, W. Va.	Miss Galbraith's School.	
Petersburg, Va.	Board of Education.	
ROME, Ga.	Hills, Dailey & Co.	
" "	Public School.	
Savannah, Ga.	Board of Education.	
" "	Miss Adams' School.	
Selma, Ala.	Mr. McVoy's School.	
Shreveport, La.	{ Classical and Commercial Academy.	
" "	George Williamson.	
" "	Thatcher & Alexander.	
Stanton, Va.	{ Institution for the Deaf, Dumb and Blind.	
St. Augustine, Fla.	Public School.	
" "	Dr. Bronson.	
Tallahassee, "	Public School.	
Tupelo, Miss.	W. L. Lawrence.	
Uniontown, Md.	Public School.	
Washington, D. C.	Colored Public Schools.	
" "	Columbian College.	
" "	Franklin School.	
" "	Gurley Chapel.	
" "	Howard University.	
" "	Mrs. McLeod's School.	
" "	{ Misses Evans & Williams' School.	
" "	{ Mrs. Condron and Miss Smith's School.	
" "	Mrs. Morris' School.	
" "	National Theological Inst.	
" "	{ Prof. Hunt's Classical Seminary.	
" "	Stevens' School.	
" "	3d Dist. Grammar School.	
" "	2d " Public "	
" "	3d " " "	
Waynesboro, Ga.	Waynesboro Academy.	
Wilmington, N. C.	General Colston's School.	
Winchester, Ky.	J. N. Massie.	
Winchester, Va.	Samuel F. Chapman.	
Wooster, O.	Wooster University.	

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